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STATE OF NEW YORK.

No. 9.

IN ASSEMBLY,

JANUARY 6, 1885.

ANNUAL REPORT

OF THE SUPERINTENDENT OF PUBLIC WORKS OF THE
STATE OF NEW YORK.

OFFICE OF THE SUPERINTENDENT OF PUBLIC WORKS, }
ALBANY, *January 6, 1885.*

To the Hon. GEO. Z. ERWIN, *Speaker of the Assembly :*

SIR — As required by law, I have the honor to present herewith
to the Legislature, the Annual Report of this Department, for the
fiscal year ended September 30, 1884.

JAMES SHANAHAN, .

Superintendent of Public Works.

[Assem. Doc. No. 9.]

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REPORT.

OFFICE SUPERINTENDENT OF PUBLIC WORKS, }
ALBANY, *December 27, 1884.* }

To the Honorable the Legislature of the State of New York:

The Superintendent of Public Works, in obedience to the requirements of law, submits his Annual Report for the fiscal year ending September 30, 1884.

The expenditures for the department have been as follows:

ORDINARY REPAIRS AND OPERATING EXPENSES.

By Superintendent of Public Works.....	\$27,953 30
By Assistant Superintendents of Public Works.....	254,460 26
By Superintendents of Canal Repairs.....	384,235 11
By salaries of Superintendents of Canal Repairs	22,719 72
By clerk-hire and office expenses of Superintendent and Assistant Superintendents.....	11,606 32
By salaries and traveling expenses of Superintendent and Assistant Superintendents.....	17,350 95
	<hr/>
	\$718,325 66
By amount earned by State dredges	5,452 50
	<hr/>
	\$712,873 16
For Collector of Statistics and Inspectors.....	24,472 87
	<hr/>
	<u>\$737,346 03</u>

EXTRAORDINARY REPAIRS.

By Superintendent of Public Works, Champlain en- largement	\$21,776 42
By contract.....	11,320 00
	<hr/>
Total	<u>\$33,096 42</u>

The expenditure for extraordinary repairs is paid from an appropriation for the Champlain canal enlargement.

The detailed report of the expenditures for ordinary repairs and operating expenses will be found in subsequent pages of this report.

TONNAGE.

The canals were opened on the 6th of May and closed on December 1. The following is the exhibit of the tonnage for the seasons of 1883 and 1884:

May 7 to December 1, 1883.....	5,664,056 tons
May 6 to December 1, 1884.....	5,009,488 tons
	<hr/>
Showing a decrease for 1884.....	654,568 tons
	<hr/> <hr/>

The decrease in the tonnage was brought about by untoward circumstances, such as the decreased export demand for articles that are usually carried by the canals, and the increased opposition from railroads for carrying freight for the past season, which has never been paralleled, owing to the war of rates.

NAVIGATION.

During the past season the levels have been kept to the standard depth of water. There have been no interruptions save those that have been caused by breaks. Boats have made unusually fast trips.

On the 9th of June a break occurred on the Champlain canal at Coveville which delayed navigation until the 21st of June. The cost of repairing was \$14,685.53.

On the 25th of June occurred the break on the berme bank at the east end of Palmyra aqueduct. Navigation was resumed on July 2. The cost of repairs at this point was \$3,765.54.

On the 12th of August a leak was discovered at Clute's dry dock, on section 2, Erie canal, which necessitated the building of a coffer-dam and crib filled with puddled clay and gravel. Navigation was suspended six days. \$937.51 was expended upon repairs to this break.

HUDSON RIVER IMPROVEMENT.

Under the provisions of chapter 110 of the Laws of 1884, entitled "An act for the improvement of the Hudson river and to make an appropriation therefor," the sum of \$30,000 was appropriated

for the purpose of removing obstructions in and improving the navigation of the Hudson river at and between the city of Troy and the town of Coxsackie, by deepening and widening the navigable channel of said river so as to secure between the railroad bridge at Troy and the lower railroad bridge at Albany a channel 125 feet wide with a depth of eight feet of water at low tide, and from thence to the town of Coxsackie a channel of 150 feet wide with a depth of ten feet of water at low tide.

Under the provision of the bill the sum of \$3,000 of the above \$30,000 was set apart for the removal of obstructions in the Sauger-ties creek.

The work was done to the satisfaction of those directly interested in the navigation of the Hudson river, at the following cost, exclusive of the cost of engineering:

HUDSON RIVER IMPROVEMENT, 1884.

(Chap. 110, Laws of 1884.)

Location.	Price per cubic yard.	Number of yards dredged.	Amounts paid.
Buckenplaut Light.....	13c.	42,703.82	\$5,426 11
Fish House Shoal.....	15c.	13,993.91	2,099 09
Round Shoal.....	17c.	30,068.40	5,111 62
Esopus Creek.....	8 $\frac{3}{4}$ c.	29,151.00	2,550 72
		<hr/>	
Total number of yards dredged.....		115,917.13	<hr/>
		<hr/>	
Total amount paid for dredging as per contracts.....			\$15,187 54
For work done by State Dredge No. 2.....			1,480 00
For salaries and expenses of inspectors			1,212 89
For printing			110 28
			<hr/>
Total amount expended, exclusive of engineers' sala- ries, etc.....			\$17,990 71
			<hr/> <hr/>

LENGTHENING LOCK 50, ERIE CANAL.

Under the provisions of chapter 80 of the Laws of 1884, entitled "An act to provide for lengthening Lock No. 50 of the Erie canal, and making an appropriation therefor," the sum of \$30,000 was appropriated to be expended by the Superintendent of Public Works, or so much thereof as may be necessary, for the lengthening of Lock

50 in such a manner as to allow the locking of two boats of the ordinary size of those running on the Erie canal, at one and the same time, one following the other, and upon such a plan as that while it will thus allow the passage of two boats at the same time, will also allow, if required, the passage of but one boat by the use of only the present existing lock. The work was required to be completed, under the act, before the opening of navigation in 1885.

Immediately after the close of navigation this year the work was begun and will be completed at the time stipulated in the act.

WATER SUPPLY.

There are three important places on the canals, where the water supply must demand special attention.

The *first* is what is known as "the long level" between Utica and Syracuse, a distance of 53.597 miles. This is supplied by reservoirs located in the counties of Herkimer and Oneida on the north, emptying their waters into the Black river down to Forestport, and from thence through a navigable feeder to Booneville, where it is taken into the Black River canal to Rome, where it enters the Erie canal, forming one of its principal feeders.

To the south, there are also several reservoirs which feed this same level at Oneida, Chittenango, Oriskany, and several other points. These serve also to feed the canal between Utica and Little Falls.

The capacity of these reservoirs up to a few years ago seemed to be entirely sufficient for the maintenance of an abundant supply of water for these levels. However, the experience of the last few years has proved that, with the failure of the streams during the summer months (which has been quite perceptible) for the safety of navigation, an increase of storage capacity must be resorted to.

At the opening of the canal last spring all the reservoirs were nearly filled. At the close of navigation they were nearly empty. This state of affairs proves the importance of the construction of a dam and reservoir at Forestport, for which a bill was before the last Legislature, and which failed of passage before the adjournment. I would most earnestly recommend its passage this winter at as early a stage of the session as possible, so that the work upon the construction of the dam and reservoir may be commenced this winter and completed during the coming season.

The *second* is the long level between Lockport and Rochester, which is sixty-two miles in length. This is fed principally from

Lake Erie. On the Lockport end of this level, the water is kept to a depth of eight feet, and at Rochester it should be kept at seven feet. The reason that the water is the deepest at the west end is, to force it through the entire level. But its progress is checked by four obstacles, as follows:

First, Because of the length of this level, necessarily there is a large number of waste-weirs to be used in case of accident, in quickly drawing water from the level, thereby diminishing and frequently averting wholly any and all damage arising therefrom. These waste-weirs discharge into streams whereon mills are situated. Too often the owners of these mills claim to be judges as to the surplusage of water in the canal, and are not over-scrupulous in acting upon their opinions by drawing water through the waste-weirs to accommodate their mills, when the canal is in need of it. I have endeavored to stop this practice.

The *second* obstacle comes from the wind. When it blows strongly from the east it affects the depth of water five or six inches on parts of the level.

To the *third* obstacle to the free passage of water I wish to call particular attention, as it entirely subverts the scheme upon which this level was constructed. I refer to the swing bridge at Albion, which is a serious obstruction to the regulation of water on this level, and the consequent impairment of navigation between this point and Rochester.

By the construction of a pier for the drawbridge and abutments, a partial dam is made and the channel is contracted.

Actual measurement reveals the following:

	Square feet.
Total area of waterway=81.50x7.60.....	619.40
Deduct actual passage for water, 53.0x7.60.....	402.8
Two arches.....90.62 and	493 42
Number square feet waterway contracted by masonry in center pier.....	125.98

It will thus be seen that the current is contracted about one-quarter, causing a difference in the height of the level, immediately above and below this swing bridge, of from three to five inches.

It can be readily seen that the current through the opening is increased, thereby rendering more difficult the passage of boats.

I would respectfully recommend the substitution of a lift bridge, and thus restore the capacity of the canal at this point to that which it had originally before the construction of this bridge.

The *fourth* obstacle is the most difficult and expensive to overcome. I refer to the growth of eel-grass in the canal, which has been a source of considerable annoyance and expense. The practical way of disposing of this is the digging of it out, root and branch. To do this, the work should be begun on the west end of the level and proceeded with to the eastward with the current, as then the seed or bulb would be carried away from the finished work instead of into it.

A certain amount of this work should be done each year until the entire level is gone over, using our present method of caring for it until the excavation is completed.

The time for doing this work in the spring is so limited, that at the best but very little of this work can be done. To do it in the winter is impracticable. The only practical method then is to do what can be done, economically, with men and wheelbarrows, in the spring; then to continue with dredges in the summer, depositing the sediment upon the banks, to be used in strengthening and raising weak and low banks.

The *third* important place on the canals where the water supply should demand special attention is the Glens Falls feeder on the Champlain canal. Navigation on this from the feeder to Fort Ann, north a distance of about ten miles, and from the feeder to the Saratoga dam, south a distance of about twelve miles, is kept up by water from the Hudson, by damming this water at Glens Falls, which is taken through the Glens Falls feeder, a distance of twelve miles.

Navigation on the Champlain canal is entirely dependent on this supply, the feeder level being a summit level.

Observation has shown that the supply of water in the upper Hudson is failing. During last season, the guard gates at the head of the Glens Falls feeder were opened full width for the consecutive days of one whole month, as also many other days during the season of navigation, during which time all the water of the Hudson has been taken into the canal, with barely sufficient water for navigation.

I would respectfully suggest the construction of one or more reservoirs (to be wholly under the control of the State), of sufficient capacity to overcome any emergency that may arise from lack of water.

GENERAL IMPROVEMENT.

As stated in my last report, among the proposed improvements was the restoration of the tow-path to its normal condition, with this

object in view I ordered the building of twelve new scows with a carrying capacity of eighty cubic yards of gravel each. These were completed last June. Four of them were assigned to each of the three divisions of the canals. Their working was under the direct supervision of each of the three assistant superintendents on their respective divisions.

For the practical result of the inauguration of this plan I may be permitted to quote from a report made by a committee from the Produce Exchange of New York — Messrs. Robert P. Clapp and J. E. Hulshizer to J. H. Herrick, Esq., President of the Produce Exchange, on the 28th of November, 1884.

“The committee appointed by you to represent the New York Produce Exchange in its acceptance of the invitation by the State Engineer and Superintendent of Public Works of the State of New York to make a trip with them over the Erie canal in a steamer, for the purpose of personal examination of its condition and operation, report as follows :

“On October 21st we proceeded to Buffalo, when we were met by the above-named State officials. Boarding a steamer, we first made a tour of inspection of Buffalo harbor, especially the canal break-water, now being in some parts rebuilt and in others undergoing repairs ; we found the cribwork was being rip-rapped with very heavy rock, and it is the opinion of your committee that it will be a long time before any of the present work will require overhauling.

“Leaving the works of the harbor referred to, we entered the canal and came as far as Fultonville, 296 miles by steamer, the remaining fifty-six miles to Albany we traveled by carriage upon the canal tow-path, making the entire distance traveled, 352 miles.

“We found plenty of water in all the levels and both banks in good order, the tow-path was in good condition the entire distance, with the exception of a few places which will be completely restored during the following year by the system of graveling inaugurated by Superintendent Shanahan. On the western division most of the old wooden bridges have been replaced by substantial iron structures and the masonry repointed and otherwise restored ; the same will be done on the middle and eastern divisions as occasion requires.

“There was no detention at the locks or elsewhere, and from frequent inquiries of the captains of different boats, we found invariably their reports were “the canal is all right and there is no trouble.”

These replies coming directly from the boatmen satisfied your committee, that it was being operated in an entirely satisfactory manner.

“The level between West Troy and Albany (seven miles), which of late years was only used by lumber boats, has been thoroughly dredged and is now used by grain as well as lumber boats.

“In conclusion, your committee will say that they found much in the condition and management of the canal to commend, and nothing that would cause them to make adverse criticism.

“The State Engineer and Superintendent of Public Works, together with their subordinates, gave us every facility for making any examinations we requested along the line of the canal.”

The reports of the assistant superintendents, which contain much valuable information, form a part of this report and are submitted herewith. In closing, I acknowledge, with gratification, the care and fidelity with which the assistant superintendents have discharged their duties on their divisions.

JAMES SHANAHAN,

Superintendent of Public Works.

SUMMARY of Expenditures, Ordinary Repairs, for the fiscal year ending September 30, 1884.

CANAL.	Section.	By Superin- tendent of Public Works.	By Assistant Supts. Pub- lic Works.	By Supts. of Canal Repairs.	Salaries of Supts. Canal Repairs.	Total each section.	Total each canal.
Erie.....	1	.....	\$7,056 35	\$40,599 77	\$1,200 00	\$48,856 12	
Erie.....	2	.....	8,259 69	24,963 64	1,119 72	34,343 05	
Erie.....	3	.....	13,282 36	26,806 82	1,200 00	41,289 18	
Erie.....	4	.....	7,228 00	22,863 56	1,200 00	31,291 56	
Erie.....	5	.....	14,992 75	16,752 44	1,200 00	32,945 19	
Erie.....	6	.....	11,548 10	13,788 91	1,200 00	26,537 01	
Erie.....	7	.....	9,098 51	9,421 79	1,200 00	19,720 30	
Erie.....	8	.....	10,474 10	21,362 43	1,200 00	33,036 53	
Erie.....	9	.....	9,835 82	27,366 73	1,200 00	38,402 55	
Erie.....	10	.....	8,695 09	25,345 11	1,200 00	35,240 20	
Erie.....	11	.....	25,513 79	44,767 29	1,200 00	71,481 08	\$413,142 77
Champlain	1	\$264 95	\$22,738 52	\$16,510 53	\$1,200 00	\$40,714 00	
Champlain	2	.....	6,701 12	20,895 37	1,200 00	28,796 49	
Champlain	3	.....	2,562 71	16,157 99	1,200 00	19,920 70	89,431 19
Oswego	1	.....	\$980 33	\$7,692 19	\$1,200 00	\$9,872 52	
Oswego	2	.....	9,501 31	12,383 70	1,200 00	23,085 01	32,957 53
Cayuga and Seneca.....	.....	.....	\$2,590 03	\$6,236 21	\$1,200 00	\$10,026 24	10,026 24
Black River	1	.....	\$9,564 19	\$21,979 82	\$1,200 00	\$32,744 01	
Black River	2	.....	8,406 86	8,340 81	1,200 00	17,947 67	50,691 68
Chenango .....	.....	.....	\$4,324 20	.....	.....	\$4,324 20	4,324 20

Summary of Expenditures — Continued.

	By Superin- tendent of Public Works.	By Assistant Supts. Pub- lic Works.	By Supts. of Canal Repairs.	Salaries of Supts. Canal Repairs.	Total each section.	Total each canal.
Division expenses:						
Eastern.....	\$200 00	\$49,182 26	.....	.....	\$49,382 26	
Middle.....	4,000 00	8,430 48	.....	.....	12,430 48	
Western.....	19 48	3,493 69	.....	.....	3,513 17	
						\$65,325 91
General expenses:						
Erie.....	\$22,347 37	.....	.....	.....	.....	22,347 37
Champlain.....	1,121 50	.....	.....	.....	.....	1,121 50
Office expenses:						
Albany.....	\$6,178 66	.....	.....	.....	.....
Eastern Division.....	1,902 30	.....	.....	.....	.....
Middle Division.....	1,800 91	.....	.....	.....	.....
Western Division.....	1,724 45	.....	.....	.....	.....
						11,606 32
James Shanahan, Superintendent Public Works.....			Salary.	Travel.	Total.	
James D. Hancock, Assistant Superintendent Public Works.....			\$6,000 00	\$159 52	\$6,159 52	
Wm. V. Van Rensselaer, Assistant Superintendent Public Works.....			3,000 00	520 60	3,520 60	
John Stebbins, Assistant Superintendent Public Works.....			1,422 40	378 39	1,800 79	
Ossian Bedell, Assistant Superintendent Public Works.....			1,577 60	368 21	1,945 81	
Ira Betts, Assistant Superintendent Public Works.....			1,750 00	649 07	2,399 07	
			1,250 00	275 16	1,525 16	17,350 95
Total .....			.....	.....	.....	\$718,325 66

STATEMENT of Expenditures for Ordinary Repairs and Operating Expenses on New York State Canals, by Divisions, for the fiscal year ending September 30, 1884.

	By Supt. of Public Works.	By Assistant Supt. of Pub. Works.	By Supts. of Canal Re- pairs.	Total on each Division.
Eastern Division :				
Erie.....		\$35,826 40	\$115,233 79	
Champlain.....	\$264 95	32,002 35	53,563 89	
Division expenses.....	200 00	49,182 26	.....
Office expenses.....	.....	1,902 30	.....
Ass't Supt. salary and expenses.....	.....	3,520 60	.....
Salaries Supts. Canal Repairs.....	.....	.....	8,319 72	
Totals.....	\$464 95	\$122,433 91	\$177,117 40	\$300,016 26
Middle Division:				
Erie.....		\$35,639 36	\$39,963 14	
Oswego.....		10,481 64	20,075 89	
Cayuga and Seneca....		2,590 03	6,236 21	
Black River.....		17,971 05	30,320 63	
Chenango.....		4,324 20	.....
Division expenses.....	\$4,000 00	8,430 48	.....
Office expenses.....	.....	1,800 91	.....
Ass't Supt. salary and expenses.....	.....	3,746 60	.....
Salaries Supts. Canal Repairs.....	.....	.....	9,600 00	
Totals.....	\$4,000 00	\$84,984 27	\$106,195 87	195,180 14
Western Division:				
Erie..		\$54,518 80	\$118,841 56	
Division expenses.....	\$19 48	3,493 69	.....
Office expenses.....	.....	1,724 45	.....
Ass't Supt. salary and expenses.....	.....	3,924 23	.....
Salaries Supts. Canal Repairs. ....	.....	.....	4,800 00	
Totals.....	\$19 48	\$63,661 17	\$123,641 56	187,322 21
General expenses:				
Erie.....	\$22,347 37			
Champlain.....	1,121 50			
Albany office expenses, Supt. Public Works, salary and expenses,	6,178 66			
	6,159 52			35,807 05
Total.....	.....	.....	.....	\$718,325 66

SUMMARY of Expenditures for Salaries, Traveling Expenses, Clerk Hire and Office Expenses of the Superintendent and Assistant of Public Works for the fiscal year ending September 30, 1884.

	Salary.	Travel.	Total.
James Shanahan, Superintendent of Public Works.....	\$6,000 00	\$159 52	\$6,159 52
James D. Hancock, Assistant Superintendent of Public Works..	3,000 00	520 60	3,520 60
Wm. V. Van Rensselaer, Assistant Superintendent of Public Works,	1,422 40	378 39	1,800 79
John Stebbins, Assistant Superintendent of Public Works	1,577 60	368 21	1,945 81
Ossian Bedell, Assistant Superintendent of Public Works.....	1,750 00	649 07	2,399 07
Ira Betts, Assistant Superintendent of Public Works... ..	1,250 00	275 16	1,525 16
Office expenses :			
Albany office.....		\$6,178 66	\$17,350 95
Eastern Division office.....		1,902 30	
Middle Division office.....		1,800 91	
Western Division office.. ..		1,724 45	11,606 32
Total.....		.....	\$28,957 27

STATEMENT of Salaries paid to Superintendents of Canal Repairs during the fiscal year ending September 30, 1884.

	<i>Erie Canal.</i>	Amount.	Each Canal.
Section 1. M. Redmond.....		\$700 00	
James B. McKee.....		500 00	
Section 2. R. Hathaway.....		1,100 00	
Wm. Hathaway.....		19 72	
Section 3. John Hughes.....		1,200 00	
Section 4. John F. Thomas.....		1,200 00	
Section 5. Chas. Graham.....		1,200 00	
Section 6. R. R. Osmond.....		1,200 00	
Section 7. John H. Eldridge.....		1,200 00	
Section 8. D. V. Teller.....		1,200 00	
Section 9. John S. Gunsaul.....		1,200 00	
Section 10. H. H. Servoss.....		1,200 00	
Section 11. Geo. Chambers.....		1,200 00	
			\$13,119 72

Champlain Canal.

Section 1. D. F. Baker.....	\$1,200 00	
Section 2. Geo. B. Sherrill.....	1,200 00	
Section 3. Sylvester Mahan.....	1,200 00	
		3,600 00

Oswego Canal.

Section 1.	John Leahey.....	\$1, 200 00	
Section 2.	L. T. Richardson.....	1, 200 00	
		<hr/>	\$2, 400 00

Cayuga and Seneca Canal.

D. W. Colvin.....	1, 200 00
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Black River Canal.

Section 1.	Peter Phillips.....	\$1, 200 00	
Section 2.	James Galvin.....	1, 200 00	
		<hr/>	2, 400 00
Total.....			<hr/> <hr/> \$22, 719 72

DETAILED REPORT of Payments and Drafts made by Superintendent of Public Works, chargeable to Ordinary Repair Fund, Collectors of Statistics and Inspectors, and Champlain Improvement, for fiscal year ending September 30, 1884.

Albany Office Expenditures.

Salaries, clerks, etc.....	\$5, 499 94	
Stationery, etc	85 16	
Postage and box rent.....	204 68	
Telegraphing	237 14	
Use of telephone.....	85 20	
Miscellaneous	66 54	
	<hr/>	\$6, 178 66

Erie Canal — General.

Special agents	\$2, 798 45	
Printing.....	185 61	
Taking inventory.	131 94	
Constructing twelve gravel scows	15, 686 60	
Inspectors	443 79	
Constructing two dump scows	2, 680 00	
Reconstructing bridge at Utica.....	4, 000 00	
Royalty on patent lock-steps.....	80 00	
Miscellaneous	680 21	
	<hr/>	26, 686 60

Champlain Canal — General.

Purchase of gravel bed.....	\$303 00	
Special patrolman	570 15	
Harbor-master	393 55	
	<hr/>	1, 266 70

Collectors of statistics and inspectors	\$24,472 87
Improvement Champlain canal and Glens Falls feeder, under chapter 301, Laws of 1884.....	21,776 42
Total	<u>\$80,381 25</u>

*Ordinary Repairs and Operating Expenses for fiscal year ending
September 30, 1884.*

By Superintendent of Public Works	\$27,953 30
By Assistant Superintendents of Public Works	254,460 26
By Superintendents of Canal Repairs.....	384,235 11
Salaries of Superintendents of Canal Repairs	22,719 72
Clerk hire and office expenses of Superintendent and assistants	11,606 32
Salaries and traveling expenses of Superintendent and assistants	17,350 95
Total ordinary repairs	<u>\$718,325 66</u>
Collectors of statistics and inspectors	24,472 87
Total	<u>\$742,798 53</u>

Improvement of Champlain canal and Glens Falls feeder, by Superintendent of Public Works	\$21,776 42
Under contract.....	11,320 00
Total	<u>\$33,096 42</u>

*STATEMENT of Moneys paid into the State Treasury by the
Superintendent of Public Works, for the fiscal year ending
September 30, 1884.*

Jan'y 26. Amount rec'd from J. D. Hancock, asst., for use of State dredge.....	\$2,905 00
Feb. 27. Amount rec'd from Wm. V. Van Rensselaer, asst., for use of State dredge.....	2,547 50
27. Amount rec'd from Wm. V. Van Rensselaer, asst., for sale of ice permits.....	813 39
27. Amount rec'd from George B. Sherrill, sale of old iron.....	10 50
27. Amount rec'd from D. F. Baker, sale of old boat	11 00
April 19. Amount rec'd from George Chambers, towing sunken boat.....	78 50
May 13. Amount rec'd from Ossian Bedell, asst., sale of ice permits.....	1,391 96
July 15. Amount rec'd from sale of old iron at Cohoes shop	88 73

July 15.	Amount rec'd from D. F. Baker, sale of old boat, etc.....	\$11 00
Sept. 23.	Amount rec'd from Chas. Shoemaker, sale of old iron.....	175 36
23.	Amount rec'd from D. F. Baker, unloading boat, etc.....	61 10
29.	Amount rec'd from H. H. Servoss, moving sunken boat.....	80 50
29.	Amount rec'd from H. H. Servoss, sale of sunken boat.....	17 25
Total		<u>\$8,191 79</u>

EASTERN DIVISION.

REPORT OF ASSISTANT SUPERINTENDENT.

OFFICE ASSISTANT SUPERINTENDENT PUBLIC WORKS, }
EASTERN DIVISION OF THE CANALS, }
ALBANY, N. Y., *November 11, 1884.* }

HON. JAMES SHANAHAN, *Superintendent Public Works:*

SIR — In compliance with the regulations established, governing the Department of Public Works, I have the honor to present you herewith my report upon the Eastern Division of the canals, for the fiscal year ended September 30, 1884.

EASTERN DIVISION.

The Eastern Division embraces that portion of the Erie canal, beginning at the head of navigation of the Hudson river, passing from its eastern terminus in the city of Albany, over a ridge of slate rock, to an elevation of 189 feet above tide-water, in a distance of twelve miles; rising thence until it reaches the Mohawk valley, it crosses and recrosses the Mohawk river, within a distance of twelve miles, by the largest aqueducts on the canals. Crossing the Schoharie creek, fifty miles away, it follows the Mohawk valley, passing through the deep gorge at Little Falls, reaching its western terminus at the east line of Oneida county, $106\frac{24}{100}$ miles from Albany and near the Summit level, 420 feet above tide-water.

The Albany basin, the side-cuts at Port Schuyler and West Troy, with the Mohawk feeder at Little Falls, are united, $1\frac{62}{100}$ miles long, making an aggregate length of $107\frac{86}{100}$ miles for the Erie canal and its collaterals.

The Champlain canal, forming the remainder of this division, begins at the guard-lock on the Mohawk river, and winds sinuously through the historic valley of the upper Hudson, which stream it enters and crosses at Saratoga dam.

It follows the course of the Hudson to Fort Edward, a short distance above which the waters from the Glens Falls feeder enter the canal, at which point it obtains the summit level, nearly 176 feet above mean tide-water.

From the northern terminus of this level — twelve miles long — it makes a descent through eight locks to Lake Champlain, at the village of Whitehall, where it enters the lake, connecting with the waters of the Dominion of Canada and the North and West, at an elevation of 124 feet above tide-water.

The pond above Troy dam, nearly three miles long, together with the Glens Falls feeder and pond, more than twelve miles in length, give a total for this canal of eighty-one miles, which with the Erie canal, makes the aggregate number of miles of canal operated and cared for on this division, $188\frac{86}{100}$.

The charges which distinctively pertain to this division are embraced in expenditures for the construction and operation of scows, dredges, tugs, the skilled labor at the Cohoes shops, and the purchase of material for shops for such needed constructions as may be required for early or immediate use on the several sections of the canals.

Reference to the financial report of this division, which follows, discloses the fact that the purchases and labor on division account for the fiscal year aggregated a little more than \$49,000. During the year just closed there has been made at the shop at Cohoes, and distributed to various sections, manufactured material of the values enumerated below:

Section 1, Erie canal	\$6, 985 20
Section 2, Erie canal	3, 102 51
Section 3, Erie canal	595 08
Section 4, Erie canal	2, 105 86
Section 1, Champlain canal.....	2, 286 43
Section 2, Champlain canal.	1, 303 02
Section 3, Champlain canal.....	1, 027 92
	<hr/> <hr/>

Of the total amount expended on account of this division, \$24,-785.62 were expended on account of the shop at Cohoes.

During the year just closed there has been constructed at the Cohoes yard, a new hull in the place of the tug "Barkley," which, by reason of her age and generally rotten condition, was broken up and abandoned. The new tug "Mamie Ashe," is of light draft, flat bottom, and has proven her capacity for effective work in handling the dredge and scows in low water before and behind the river dykes where alone dumping ground can be secured.

The total cost of this tug at shop was \$3,732.58. There has also been constructed at Cohoes, one dump scow of improved pattern, at a cost of \$1,200; also, a wrecking-boat for division use, costing about \$700. Upon this boat the powerful pump and engine formerly moved from place to place on wheels has been placed after being thoroughly overhauled and repaired. The boat is properly and fully equipped with lines, levers, blocks and tackle, and has quarters for a crew who can move her without delay to any point needed with great dispatch, thus leaving the tug — that formerly had to leave her work with the dredge — free to continue in the river or basin. In addition to the new work and repairs alluded to above, there has been expended in repairing and reconstructing the boiler of the old dredge, which includes some needed repairs to her

engine ; so, also, was the boiler of the tug "Ashe" supplied with entirely new flues and steel fire-box at a cost of a little more than \$1,500. It was not intended in this place to offer more than a general review of the more important work pertaining to the division proper, leaving to the exhaustive reports of the superintendents of repairs, which are transmitted herewith, the more particular account of what in detail has been undertaken and completed on the several sections of the canals under my supervision.

There has been expended directly by the assistant superintendent of this division, from October 1, 1883 to September 30, 1884, \$118,913.31. While this amount nearly equals any annual expenditure previously made on the division within a number of years, reference to the several disastrous breaches that occurred in the banks in quick succession in the months of June and August, will satisfactorily explain the seeming unusual excess alluded to.

The items of expenditure and the distribution, variously, will be found succinctly stated in the following financial report of such expenditures :

*Summary of Expenditures on the Eastern Division of the Canals,
from October 1, 1883, to September 30, 1884.*

Eastern Division, office...	\$1,902 30
Eastern Division.....	49,182 26
Section 1, Erie canal.....	7,056 35
Section 2, Erie canal.....	8,259 69
Section 3, Erie canal.....	13,282 36
Section 4, Erie canal.....	7,228 00
Section 1, Champlain canal.....	22,738 52
Section 2, Champlain canal.....	6,701 12
Section 3, Champlain canal.....	2,562 71
Total	<u>\$118,913 31</u>

GENERAL REMARKS.

There is little to be said that is unusual in relation to the condition of the canals of this division. It was my aim when I assumed the duties of assistant superintendent four years since, to systematically improve the facilities for transportation, and to the extent of possible disbursements of money, to give substantial evidence each year of needed and thorough repairs.

Upon all the sections of the canal the repairs mainly have been well and judiciously done, the levels well kept up, and excellent navigation maintained.

Upon sections 2 and 3 of the Erie canal, four of the large repair scows constructed during the last winter by direction of the Superintendent of Public Works were delivered early in June, and two of them were immediately manned, and have been uninterruptedly engaged in graveling and raising the towing-path on the sections named, depositing and properly distributing more than nine thousand cubic yards of selected material. Another year will find these large and valuable boats all in commission, and will demonstrate the wisdom of the construction of the large fleet of substantial repair scows of great capacity and strength, which is now ready for more extended operations.

In addition to the above work, a force of skilled masons have been engaged throughout the season in pointing the masonry of aqueducts and locks on the Erie canal, and have completely finished, in the best manner, more than seventy of these structures. The small dredge has been operated extensively on section 2 in the vicinity of Rexford Flats, in the removal of large quantities of slacked slate that for some years has been sliding from the adjacent rocky bluff into the canal; the material so removed has been thrown upon the towing-path and leveled for a long distance, making a very dry and durable roadway for teams.

The larger dredge has been constantly operated in the Albany basin, where her uninterrupted services are required to make passable the channels that are being constantly filled by the vast sewage and surface filth of the city; which fact suggests the propriety of legislative or other interference to determine the relative rights of State and city; or, more properly, to afford some means of permanently abating an expensive and increasing nuisance.

BREACHES.

On the morning of June 9 there occurred near Costello's grocery, three miles south of Schuylerville, one of the most serious breaches in the recent history of the Champlain canal. The high bank near the sluggish water along the river cove suddenly gave way letting through the water from the sixteen-mile level and removing more than 25,000 cubic yards of earth and sand, and completely interrupting navigation for a period of fourteen days. The total cost of restoring the bank and refilling canal bottom and breach was \$14,685.53, which included all expense save the cost of stone for the crib and the damages claimed for the land appropriated by the State.

This is the third break that has occurred within a distance of a half mile through the same artificial bank along the river side, the soil being a mixture of dry, loose and quick sand which is constantly saturated at its base with water from the marshy formation along the river shore. A system of piling along the entire course of this treacherous bank should be resorted to to insure its safety.

On June 18 while the repairs of the above breach were progressing another break occurred on section 3 of the Erie canal at a point about one hundred feet west of the first waste-weir below lock 31, on the tow-path side, delaying navigation but a little more than twenty-four hours, the repairs being promptly made by the superintendent of the section without reported cost to the division.

On Tuesday, August 12, a serious leak was discovered through the masonry around the entrance to the drop culvert which receives the waste water from Clute's dry dock and a small stream that drains the adjacent lands. The water was drawn from the level as soon as possible and a coffer dam constructed and a substantial crib built and filled with puddled clay and gravel, which completely shut out the water and saved the cost of entirely reconstructing the sunken and fallen masonry about the entrance to the culvert. Navigation was suspended six days, and the total cost — working the crews of three State scows, whose wages were not included — was \$937.51.

With the exceptions above noted there have been no delays to navigation during the year, and at no time in twenty years have the canals on the Eastern Division been in so secure and satisfactory a condition as now.

RECOMMENDATIONS.

I have urged in each annual report for the last four seasons, the construction of a dam of cut stone at Little Falls; also the work which is most important, embraced by a section of the canal beginning at the city of Schenectady, and leading westward a distance of two miles; I now renew my recommendation, that the work at these points be done without further delay if it is expected that uninterrupted navigation of the Erie canal be maintained.

With this I conclude my recommendations for the more urgently needed repairs on this division; and, with this report, I sever my connection with the Department of Public Works, and as assistant superintendent, and the charge of this division of the canals. For four years I have labored in the effort with which I began my labors in the season of 1880, with the determination to get the largest practical results from the least comparative expenditure of money. I think it not too much to assume that I leave the division, which I relinquish to my successor, in as good, if not better, form than it has been found within the past twenty years, both as to condition of the canals and structures, as well as the new machinery and implements that have been supplied or constructed during my term of office.

It affords me pleasure to bear testimony, in conclusion, to the uniform kindness of the Superintendent of Public Works, and to the intelligent and hearty co-operation of the superintendents of repairs of the various sections of the canals in all work during my term of office.

Very respectfully,
JAMES D. HANCOCK,
Assistant Superintendent, Eastern Division.

SECTION No. 1, ERIE CANAL—MICHAEL REDMOND, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the cost of each, on the line of the canal under the charge of Michael Redmond, Superintendent of Repairs of sixteen miles of the Erie canal, extending from Albany basin to aqueduct, during the 183 days ending March 31, 1884.

Locks, whole number on section, 46.....	\$900 00
Lock-tending (exclusive of oil).....	6,719 00
Oil for locks.....	
Lock-gates, whole number on section, 186.....	500 00
Aqueducts, whole number on section, 1.....	
Waste-weirs, whole number on section, 7.....	
Culverts, whole number on section, 16.....	
Harbor-masters, whole number on section, 2.....	200 00

Farm bridges (wood), whole number on section, 14,	\$786 61	}
Farm bridges (iron), whole number on section, 3..		
Road bridges (wood), whole number on section, 2..		
Road bridges (iron), whole number on section, 21..		
Tow-path bridges (wood), whole number on sec., 1,		
Tow-path bridges (iron), whole number on sec., 4..		}
State scows, whole number on section, 2.....		
Ice breakers, whole number on section, 2.....		
Under water excavators, whole number on section, 1.		
Lock-houses, whole number on section, 8.....		
Work-shops, whole number on section, 1.....		
Watch-houses, whole number on section, 29.....		
Store-houses, whole number on section, 2.....		
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	1,061 90	
Dams, whole number on section, 1.....		
Watching canal.....	776 75	
Superintendent's salary.....	700 00	
Total	\$11,644 26	

MICHAEL REDMOND,
Superintendent Canal Repairs.

SECTION No. 1, ERIE CANAL—JAMES B. MCKEE, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the cost of each, on the line of the canal under the charge of James B. McKee, Superintendent of Repairs of sixteen miles of the Erie canal, extending from Albany basin to west end of lower Mohawk aqueduct, during the 183 days ending September 30, 1884.

Locks, whole number on section, 46.....	\$2,852 08
Lock-tending (exclusive of oil).....	15,817 64
Lock-gates, whole number on section, 186.....	
Aqueducts, whole number on section, 1.....	84 90
Waste-weirs, whole number on section, 7.....	
Culverts, whole number on section, 16.....	
Weigh-locks, whole number on section, 2.....	
Farm bridges (wood), whole number on section, 14,	1,671 66
Swing bridges (iron), whole number on section, 3..	
Road bridges (wood), whole number on section, 2..	
Road bridges (iron), whole number on section, 21..	
Tow-path bridges (wood), whole number on sec., 1,	
Tow-path bridges (iron), whole number on sec., 4..	

State scows, whole number on section, 2.....	
Ice breakers, whole number on section, 2.....	
Under water excavators, whole number on section, 1.	
Lock-houses, whole number on section, 8.....	
Work-shops, whole number on section, 1.....	
Watch-houses, whole number on section, 29	
Store-houses, whole number on section, 2.....	
Raising and repairing tow-path and berme bank, not including repairs to slope wall.....	\$2,670 34
Cleaning out bottom of canal during spring repairs..	2,819 65
Dams, whole number on section, 1.....	227 45
Slope wall and vertical wall.....	300 90
Docking.....	284 46
Watching canal, horse patrol, harbor-masters, etc....	2,865 71
<i>Other work of consequence which does not come under any of the above heads, viz.:</i>	
Paving Lawrence street, Albany.....	60 72
Superintendent's salary.....	500 00
Total	<u><u>\$30,155 51</u></u>

Locks.

The locks on this section were thoroughly cleaned and repaired before the opening of navigation and have been kept in excellent condition during the season.

Lock-gates.

Fifteen new lock-gates have been placed in position and the old ones repaired and kept in good working order.

Waste-weirs.

The waste-weirs have been repaired, and with the exception of two (one north of lock 18, and one between locks 9 and 10 which should have new frames and gates) are in good order.

Culverts.

The culverts are free from all obstructions, and allow a perfect flow of water.

Bridges.

The west abutment of the bridge at the cement works on Nine-mile level has been taken down and rebuilt. Extensive repairs have been made to the Waterford and Cohoes bridge. Repairs have been made to all other bridges on section where needed, and all have been kept and are in good condition.

State-scows.

One new scow has been added to those already on section, and the old ones have been repaired.

Watch-houses.

Repairs have been made to the watch-houses, and they have been put in good condition.

Tow-path.

The tow-path has been kept in good repair. We are now engaged in graveling it in various places where it is needed.

Cleaning canal.

The bottom of the canal was thoroughly cleaned and all obstructions removed during the spring repairs.

Piers.

The piers have been repaired and are in good condition.

Sunken boats.

Nine sunken boats have been raised and put on the dry dock. Eight have been assisted to the dry dock in a sinking condition, and one has been taken off the Cohoes dam.

Depth of water.

During the season of navigation, the water upon the lower mitre-sills of the locks has never been less than seven feet deep.

Docking.

The docking in many places on the section is in a very decayed condition and requires constant care and attention.

Dams.

Fifty feet of the apron of the Cohoes dam has been entirely rebuilt and the remaining portion repaired.

JAMES B. McKEE,

Superintendent Section 1, Erie Canal.

SECTION No. 2, ERIE CANAL — ROBINE HATHAWAY, *Sup't.*
ANNUAL REPORT showing the number of structures or works,
the different heads of expenditure, and the total cost of each, on
the line of the canal under the charge of Robine Hathaway,
Superintendent of Repairs of thirty-two miles of the Erie canal,
extending from head of lower Mohawk aqueduct to head of lock
27, during the 326 days ending August 21, 1884.

STRUCTURES OR WORKS, ETC.	Whole No. on section.	Cost of new structures.	Cost of rep'rs of old, etc.	Total new and old.
Locks	19	\$400 90	\$976 40	\$1,377 30
Lock tending (excl'sive of oil)				6,609 67
Lock-gates		304 75	561 50	866 25
Aqueducts	3		52 05	52 05
Waste-weirs	2		62 00	62 00
Culverts	18			
Farm bridges (wood)	47	1,010 30	452 65	1,462 95
Farm bridges (iron)				
Road bridges (wood)				
Road bridges (iron)				
Tow-path bridges (wood)				
Tow-path bridges (iron)				
State scows	2		14 00	14 00
Ice breakers	2			
Lock-houses	7		23 70	23 70
Work-shops	1			
Watch-houses	9			
Timber sheds	1			
Raising and repairing tow- path and berme bank, not including repairs to slope walls			4,513 98	4,513 98
Cleaning out bottom of canal during spring repairs				1,218 57
Cleaning on creeks			37 35	37 35
Repairs to vertical walls			216 80	216 80
Slope wall			216 05	216 05
Docking		269 05	330 50	519 55
Breaking ice and cutting weeds, assisting boats in consequence of ice				15 60
Watching canal				819 66
Watching state-house				200 00
Divers, etc				250 00
Other miscellaneous expendi- tures, ice tools				23 80
Other work of consequence which does not come under any of the above heads, viz. : Setting posts				39 90
Single team				522 00
Foremen, etc				250 00
Clerical service				200 00
Superintendent's salary				1,100 00
Total				\$20,611 18

Locks.

Two new bulk-heads, one at 22, and one at 24, have been framed, erected and filled in, and other general repairs made upon all the locks.

Lock-gates.

Six new gates have been inserted; two at Lock 20, two at 23, two at 24, and other general repairs have been made upon all the gates.

Waste-weirs.

The waste-weirs at Schenectady were partially repaired during the spring.

Aqueducts.

General repairs have been made to Hoffman's aqueduct.

Bridges.

Four new bridges have been framed and erected at Nos. 34, 38, 47 and 71. Nos. 34, 38, 42, 45, 47 and 58 have been painted and all the others thoroughly repaired.

Tow-path.

The tow-path and berme bank have been raised and put in good condition.

Prism.

The prism of the canal was partially bottomed out during the spring. The slate rock and sediment along high bank on Feeder level has been entirely removed by use of dredge.

Creeks.

Mill creek at Schenectady has been kept cleared within the blue line.

Slope and vertical walls

were repaired at various points along the section during the spring.

Docking.

Three thousand five hundred feet of docking has been framed and inserted on tow-path at Locks 19, 20, 21, 22, 23, 24, 25, 26 and 27, and at Schenectady, and other repairs made upon plank docking west of Schenectady.

The water has been kept at a uniform depth of seven feet. The only delay in navigation was caused by the culvert at Clute's dry dock giving out on the morning of August 12. The water was drawn from the level, the culvert repaired, and navigation was resumed August 17.

This section has been under the charge of William Hathaway for the forty days ending September 30, 1884. The following table shows the amount of money expended by him:

SECTION No. 2, ERIE CANAL—WM. HATHAWAY, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of William Hathaway, Superintendent of Repairs, of thirty-two miles of the Erie canal, extending from head of lower Mohawk aqueduct to head of Lock 27, during the forty days ending Sept. 30, 1884.

Locks : new, \$83.30 ; old, \$119.30	\$201 60
Lock-tending (exclusive of oil).....	2, 700 00
Farm, road and tow-path bridges	154 00
Raising and repairing tow-path and berme bank, not including repairs to slope walls	1, 692 76
Docking	38 60
Repairs to breach at Clute's.....	41 50
Watching canal	350 00
Watching state-house	20 00

Other work of consequence which does not come under any of the above heads, viz.:

Diver, etc.....	100 00
Single team.....	104 00
Clerical service.....	50 00
Superintendent's salary.....	19 72
Total	<u>\$5, 472 18</u>

Locks.

General repairs have been made upon all the locks.

Lock-gates.

Three new gates have been inserted, one at lock 27 and two at 26.

Bridges.

General repairs have been made and new railings have been erected to Nos. 57, 67, 68 and 69.

Tow-path.

Has been raised, widened and strengthened upon all the levels.

Docking.

Four hundred feet new docking has been framed and inserted.

RECOMMENDATION.

The tow-path at Lock 24 should be replanked as the old ones are worn out. The arch to the culvert at Lock 24 has settled and some of the stones fallen out, and should be taken up and relaid. Four new bulk-heads are required, one at 23, one at 24, one at 25 and one at 27. The outside truss of the aqueduct at Rexford Flats is very rotten and will have to be renewed the coming winter. The waste-weirs at Lock 20 and at Schenectady are in poor condition, and must be repaired. The iron chord bridges Nos. 48 and 55, and wooden bridge No. 35, should be rebuilt. The abutment of bridge No. 77 has badly canted and should be relaid. There are two wooden trunks, one on Four-mile level and one at Kline's, which are old and rotten and should be renewed or closed up. The plank docking west of Schenectady is in a bad condition and should be thoroughly repaired the coming winter. There are two old dry docks on Three-mile level which leak badly and will have to be repaired or closed up.

WM. HATHAWAY,
Superintendent.

SECTION No. 3, ERIE CANAL—JOHN HUGHES, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the actual cost of each, on the line of the canal under the charge of John Hughes, Superintendent of Repairs of thirty-eight miles of the Erie canal, extending from head of Lock 27 to head of Lock 34, during the 366 days ending September 30, 1884.

Locks, whole number on section, 14.....	\$974 27
Lock-tending (exclusive of oil)	7, 174 63
Lock-gates, whole number on section, 56.	
Aqueducts, whole number on section, 8.....	1, 701 05
Waste-weirs, whole number on section, 4.....	
Culverts, whole number on section, 29	522 25
Putting run in gravel pit	35 00
Farm bridges (wood), whole number on section, 42. }	
Farm bridges (iron)	
Road bridges (wood), whole number on section, 7 . }	
Road bridges (iron), whole number on section, 7 .. }	3, 977 94
Tow-path bridges (wood), whole number on section, 5.....	
Tow-path bridges (iron)	
State scows, whole number on section, 3	27 00
Ice breakers and tools, whole number on section, 2...	42 00
Towing carpenters' scow.....	140 00
Lock-houses, whole number on section, 3.....	

Work-shops (watch), whole number on section, 2	\$296 00
Watch-houses, whole number on section, 7	
Mowing weeds	105 86
Timber sheds, whole number on section, 2	
Piling machines, whole number on section, 1	
Raising and repairing tow-path and berme bank, not including repairs to slope walls	4, 350 43
Cleaning out bottom of canal during spring repairs..	2, 375 80
Dams	359 70
Vertical wall	1, 069 95
Docking	588 90
Repairs of breaches	109 20
Breaking ice and assisting boats in consequence of ice.	364 11
Watching canal	1, 206 35
Picking up tools	238 19
Superintendent's salary	1, 200 00

*Other work of consequence which does not come under
any of the above heads, viz.:*

Feeder repairs, whole number on section, 2	165 19
Feeder tending	630 00
Work in State shop and on scow	53 00
Clerical service	300 00
Total	<u>\$28, 006 00</u>

Locks.

At Locks 33 and 34 there were new bottoms put in, grouted and replanked.

Bridges.

New bridges were erected at Endres, No. 82, Stairns, No. 98, Mitchells, No. 105, and Sprakers, No. 106. New abutments were put under Yatesville, No. 103, Lashers, No. 104, and Sprakers, No. 106. Canajoharie road bridge had a thorough repairing, new chords, needle beams, planking, etc.; about 10,000 feet of docking has been repaired along the section.

Walls.

Three hundred and sixty feet of vertical wall, laid up in cement, has been built along the berme bank of the canal from Lock 30 to the Schoharie creek aqueduct; also a vertical cement wall from Sprakers aqueduct to bridge No. 106, and a shorter retaining wall at Port Jackson.

There has been only one break on this section for the past year, which might have proved serious but for the prompt action of my

officials. The break occurred at Sprakers in June, caused by muskrats burrowing through the banks, which necessitated drawing the water from the level, obstructing navigation only ten hours.

There has been one sunken boat on my section, occasioned by the boat running against the bulk-head of Lock No. 29 on September 26, but did not stop navigation an hour.

There has been a uniform depth of seven feet of water maintained upon the lower mitre-sill of all the locks on the section.

I would recommend the following repairs as necessary for another season: The following bridges should be rebuilt: Nos. 87, 101, 112, 116, 121, 122; No. 124 should be a double road bridge; the following abutments should be taken down and relaid: Nos. 108, 112, 116; Van Wie's aqueduct should have a new trunk; Schoharie creek aqueduct should have new docking at each end on tow-path side; Fort Plain aqueduct, two aprons should be removed, foundation should be replanked, one pier relaid and one new waste gate put in; Rocky Rift feeder should have a new bulk-head and rack; 700 feet of vertical wall should be relaid along the same; Rocky Rift feeder dam should be raised with stone coping sixteen inches; Castle creek culvert should have new coping and flagging; there should be 3,000 feet long and four feet deep of docking at Big Nose, and several other shorter pieces along the section, amounting in all to over 10,000 feet; about 1,150 feet of vertical wall should be relaid one-half mile west of Diefendorf's Hill; Schoharie creek aqueduct should have new coping on piers, and places on north wall should be repaired, as some of the coping stone are gone; the gates on same should be hoist gates instead of valves to draw off the water; also a foot bridge should be placed on the south side of same; a rip-rap wall should be built on west side of Schoharie creek from the dam to the aqueduct; the old one was of timber and has all rotted out and the bank is in danger of washing away by high water; the Schoharie creek dam should have a new apron; the waste-weir below Port Jackson should have new timbers and be rebuilt; the one east of Spraker's lock should be rebuilt and that west of Lock 33 should be a stone structure; all locks from 27 to 34 should have new docking at the head; at Lock 29, 200 feet of vertical wall should be built, also at the head of Lock 30 and above and below 32, 33 and 34; Lock 32 should have a new bulk-head; Lock 34 should be replanked and have four new upper gates; Canajoharie, Lasher's and Yatesville aqueducts should all have new timbers, and a new crib should be placed in Canajoharie creek near the east abutment.

JOHN HUGHES,
Superintendent.

SECTION No. 4, ERIE CANAL — JOHN F. THOMAS, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of John F. Thomas, Superintendent of Repairs of twenty-nine miles of the Erie canal, extending from Lock No. 34 at Mindenville to the east line of Oneida county during the 366 days ending Sept. 30, 1884.

STRUCTURES OR WORKS, ETC.	Whole No. on section,	Cost of new structures.	Cost of rep'rs of old, etc.	Total new and old.
Lock	22	.....	\$142 08	\$142 08
Lock-tending (exclusive of oil) .....	.....	.....	11,221 55	11,221 55
Lock-gates.....	88	\$956 61	1,506 00	2,462 61
Aqueducts.....	6	.....	475 28	475 28
Waste-weirs.....	7	.....	20 50	20 50
Culverts.....	6	.....	31 00	31 00
Bridges of all kinds including abutments:				
Farm bridges (wood)....	19	719 85	1,665 32	2,385 17
Farm bridges (iron) chord...	14			
Road bridges (wood).....	6			
Road bridges (iron).....	7			
Tow-path bridges (wood)....	6			
Road bridges (iron) chord....	2			
State scows.....	1	.....	28 50	28 50
Small boats	2	.....	14 13	14 13
Ice breakers	3			
Lock-houses.....	2			
Work-shops	11			
Watch-houses.....	2			
Timber sheds				
Raising and repairing tow- path and berme bank, not in- cludi'g repairs to slope walls	.....	.....	2,214 05	2,214 05
Cleaning out bottom of canal during spring repairs.....	.....	.....	1,028 90	1,028 90
Cleaning on creeks.....	.....	.....	23 50	23 50
Dams.....	1	.....	149 26	149 26
Slope wall and vertical wall..	.....	.....	583 85	583 85
Docking... ..	.....	.....	176 47	176 47
Breaking and assisting boats in consequence of ice..	.....	.....	377 26	377 26
Watching canal .....	.....	.....	1,041 27	1,041 27
Tools, including shovels, picks, crowbars, axes, etc.....	.....	109 29	.....	109 29
Other work of consequence which does not come under any of the above heads, viz.:				
Feeder at Little Falls...	.....	48 75	16 14	64 89
Sunken boat.....	.....	.....	28 00	28 00
Piling lumber in sheds..	.....	.....	36 00	36 00
Clerk hire .....	.....	.....	250 00	250 00
Superintendent's salary..	.....	.....	.....	1,200 00
Total.....	.....	.....	.....	\$24,063 56

Locks.

The locks upon this section have been kept in efficient repair. Locks Nos. 40 and 41 were pointed up this spring and the head of culvert at Lock No. 35 was thoroughly concreted before opening of navigation. Snubbing posts have been set at nearly all the locks on this section this season.

Lock-gates.

The old platforms for dump gates at Lock No. 37 were taken out this spring and new ones framed and put in. Also three new lower gates were put in locks as follows: One at Lock No. 41; one at Lock No. 43 and one at Lock No. 45.

The lock-gates from Lock No. 35 to Lock No. 45, inclusive, have been kept in good repair the past season.

Aqueducts.

Two spans of Castle creek, one span of Mohawk, and one span of Ilion aqueducts are taken out every fall and replaced in the spring, to prevent the creeks from overflowing and doing damage to property along their banks. These aqueducts were thoroughly overhauled and repaired this spring by the insertion of new timbers in their trunk and new plank for the floors. The piers on berme side of canal at the Mohawk and Ilion aqueducts were found to be crowded out of place (the four top courses of stone). These were replaced, cemented and pointed up, together with the wing walls.

Waste-weir.

The wall on east side of waste-weir at Fort Herkimer was taken down, relaid and grouted.

Culverts.

The culvert on level between Locks 40 and 41 (called Dager's culvert) has been put in good condition by having the sides thoroughly grouted.

Bridges.

During the past year four new bridges have been framed and put up as follows: No. 152, iron chord road bridge (called Gas House bridge) on level between Locks 43 and 44; Nos. 167 and 168, farm (wood) bridges and No. 172, road, iron chord, wood on Nine-mile level. The berme abutment at bridge No. 148 was taken down last winter and relaid to take a twenty-foot roadway bridge, and the tow-path abutment raised about four feet, which had never been completed since building the new iron bridge across the Mohawk river at this place.

The bridges on this section have been kept thoroughly repaired the past year.

Tow-path and berme bank.

The strengthening, raising and repairing the tow-path and berme bank on this section has been well attended to this season. The berme bank above Lock No. 34 on Three-mile level has been strengthened by putting on cobble stone, and well gravelled. Also other weak places along on section have been repaired in the same way. The tow-path on section has been thoroughly gravelled and repaired. On level between Locks Nos. 39 and 40 there has been a continual leak through the tow-path, and this spring a trench was dug at one of the worst places and it was thoroughly grouted, and has stopped the leak at this place, saving a great deal of water this season. Snubbing posts have been set on tow-path and berme bank, and weeds have been cut on the whole line of section.

Cleaning out prism of canal.

Before opening of navigation in the spring the prism of canal was well cleaned out. All bars were taken out where creeks came in, and high places lowered. There has been good navigation this entire season on this section.

Creeks.

In the month of March it was necessary to break ice and open channel in creek at Frankfort, as it stops up and overflows the adjoining land and does a great deal of damage.

Dam.

The dam at Little Falls is in a very bad condition, and unless thoroughly overhauled and repaired will soon go out. It has been repaired this summer by putting on new timbers and plank, and gravelled.

Slope and vertical wall.

The vertical wall on berme side of canal from Lock No. 40 to 44 and slope wall on Nine-mile level was thoroughly repaired this spring by taking down and relaying where necessary.

Docking.

The old docking was taken out and new put in on berme side of canal at head of Lock No. 41, and a new dock built at gravel bed at Fort Herkimer this spring. The docking was also repaired at head of Locks Nos. 34 and 39, and on levels between Locks 37 and 38 and below Lock No. 45.

Breaking ice, etc.

Good and competent men were employed night and day to break ice and assist boats that no detention would arise to deter them from getting to their destination.

Watching canal.

Competent men have been employed as watchmen on the canal day and night to assist boats and prevent crowds.

Feeder.

A new bulk-head and rack was framed and put in feeder at Little Falls this spring.

Sunken boat.

Moving sunken boat out of way of navigation above Lock No. 45, Frankfort. This boat was an old boat that was almost in pieces and had been tied up above the lock, and by the swells from the lock had got loose.

The only delay to navigation this season was caused by the lower mitre-sill raising up at Lock No. 43, left hand lock. It was necessary to draw the water from the short level to repair it. The taking out of the iron valves in platforms of dump gate at Lock No. 44 and putting in wooden ones caused a delay of about thirty-six hours.

STRUCTURES NECESSARY TO BE REBUILT AND REPAIRED.

Locks.

The aprons to Lock No. 35 are in a very bad condition, and should be all newly planked and two new lower mitre-sills put in : at Lock No. 36 two new mitre-sills, one upper and one lower, and aprons repaired ; Lock 37, one new lower mitre-sill ; Lock 38, two new mitre-sills, one upper and one lower and repairs to aprons ; Lock 39, one new mitre-sill, lower ; Lock 40, two new mitre-sills, lower ; Lock 41, two new mitre-sills, one upper and one lower ; Lock 43, one new mitre-sill, lower, and new aprons to locks. Also the vertical wall on berme side, at the head of this lock will have to be taken down and relaid, as there are seven or eight large stones worked out of wall and had to be taken out of canal in September.

Aqueducts.

Castle creek aqueduct wants a thorough overhauling next spring ; there are three spans of this aqueduct that have not been taken up for years, and there is no doubt but that the timbers are in a very bad condition ; I would advise taking up the floors in these spans and examining the timbers thoroughly before putting in the other spans in the spring ; will also need new side timbers for this aqueduct ; the east wing wall of Ilion aqueduct, berme side of canal, will have to be taken down and relaid in cement as it leaks very badly ; I have had to put in plank to stop the leak this summer ; the Mohawk aqueduct will only need the ordinary repair when put in in the spring.

Waste-weirs.

Fort Herkimer, Little Falls and Fink's waste-weirs all need new aprons.

Bridges.

Nos. 133 and 145 are iron chord farm, and No. 174 iron chord road; Nos. 134-137 and 170 are wood chord farm and No. 159 wood chord road; these bridges are not in a very good condition, and new structures should be put up during next season without fail.

Repair scows.

Our carpenter scow is in a very bad condition; a new scow is needed on this section as the one we now have has got so rotten it hardly pays for repairing.

Cleaning canal.

Before the opening of navigation next spring, there are two places on this section that the prism of the canal should be taken out at least one foot, and those are below Lock No. 42, Mohawk, and head of Lock No. 39 at Little Falls; these places are both high, and unless the water on the levels is up to high-water mark and a little more boats get aground.

Dam.

The dam at Little Falls is in a very bad condition and a new stone dam should be built as the old one is liable to go out at any time.

Docking.

I would recommend taking out the old docking at head of Lock No. 34, tow-path side, and a vertical wall put in, as the old docking is all rotten and in bad condition; the docking through Little Falls, below Lock 42, Mohawk, at gas-house, Ilion, and about 200 feet of docking at Four-mile grocery on Nine-mile level; also the guard rail on tow-path at Little Falls is in bad condition; the old should be taken out and new docking and guard rail put in.

Feeder.

The retaining wall in feeder below Lock No. 39 is in a very bad condition and must be taken down and relaid without fail; the hole in tow-path at head of Lock No. 38, Little Falls, where the old feeder came in, I would recommend filling it up and having a new wall built.

JOHN F. THOMAS,
Superintendent.

SECTION No. 1, CHAMPLAIN CANAL—DAVID F. BAKER,
Superintendent.

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of David F. Baker, Superintendent of Repairs of thirty-two miles of the Champlain canal, extending from north end of Cohoes bridge to foot of first lock north of Saratoga dam, during the 366 days ending September 30, 1884.

Locks, whole number on section, 11.....	\$2, 643 18
Lock-tending (exclusive of oil)	4, 883 53
Aqueducts, whole number on section, 1.....	
Waste-weirs, whole number on section, 10.....	181 52
Culverts, whole number on section, 7.....	
Farm bridges (wood), whole number on section, 34 }	987 59
Farm bridges (iron chord), whole number on section, 2 }	
Road bridges (wood), whole number on section, 27. }	
Road bridges (iron), whole number on section, 4... }	
Tow-path bridges (wood), whole number on section, 7 }	
Change bridges (wood), whole number on section, 2 }	
Lock-houses, whole number on section, 7.....	21 30
Work-shops, whole number on section, 1.....	
Watch-houses, whole number on section, 8	
Store-houses, whole number on section, 1	
Raising and repairing tow-path and berme bank, not including repairs to slope walls	3, 285 81
Cleaning out bottom of canal during spring repairs ..	1, 492 01
Dams (feet, 1840), whole number on section, 2.....	368 83
Slope and vertical wall	139 27
Docking	470 95
Repairs of breaches.....	704 95
Watching canal	937 59
Horse patrol.....	394 00
Superintendent's salary.....	1, 200 00
Total	<u>\$17, 710 53</u>

Locks.

At the close of navigation last fall a coffer dam was constructed in the Hudson river above Saratoga guard-lock, and thorough repairs made to the lock and feeders. New wood hollow quoins, new mitre, sills, and gates newly planked, the walls pointed with Portland cement, and the lock cleaned out for the first time in twenty-seven

years. This lock is on slate rock and is not planked, the bottom is about twenty inches below canal bottom and has to be pumped while making repairs. An attempt was made a few years ago to check this lock for a stop-gate but was abandoned on account of the water. This was accomplished last winter, the loose slate rock at the head of the lock excavated about three feet below lock bottom and filled with concrete, and bottom stick for stop-gate bolted down; repairs can now be made to this lock without putting in coffer dam. The feeders on each side of this lock (which are below canal bottom) were stripped, the old wood covering taken off, the walls relaid where needed, cleaned out and newly covered with oak timber twelve inches thick and thirteen feet long, laid close together. New bulk-head and wrought-iron gates in east feeder, new iron rack and bulk-head repaired on west side. For about seventy-five feet above the lock the bottom had filled up over two feet with sunken drift wood and slate, so that loaded boats could hardly enter the lock at low water; this was taken out by hand as it could not be done with a dredge as there was no chance to swing the dipper.

At Becker's lock about thirty feet of the chamber was cut out and the walls pointed with Portland cement, new tumble-gate, hollow quoin and bucking beam were put in and flooring newly planked. At Hewitt's, walls pointed, new bucking beam and general repairs. At Flynn's, walls pointed with Portland cement, new tumble-gate, hollow quoin and bucking beam and general repairs.

At upper two-locks new bucking beams, new caps and chains for raising tumble-gates, and entire new frame, shaft and gearing for raising tumble-gate at lower two-locks, and general repairs at both locks.

At Waterford weigh-lock new culvert frame, planking sides of lock, and re-setting and clamping coping.

At side-cut pointing breast walls and general repairs.

Pointing walls at sloop-lock.

Opening feeder around Mohawk guard-lock.

Waste-weirs.

New bulk-head with wrought-iron valves and stems have been put in Flynn's waste-weir. The masonry at Wilbur's basin pointed and a portion lined with gravel to stop leakage, and the rear wall strengthened with three boat-loads of stone.

Bridges.

The following bridges have been built: Road bridge on Fourth street over Waterford side-cut; road bridge (No. 8) at Burton's saw-mill; road bridge with one sidewalk at Cemetery street, Mechanicville; road bridge with one sidewalk at William street, Mechanicville; road bridge at Stratton's (No. 39), Sixteen-mile level, and foot bridge over Becker's lock, Broad street bridge, Waterford; Depot street, Mechanicville, and Ferry street, Schuylerville, have been

newly planked. Other bridges on the section have received all necessary repairs. Sarle's road bridge approaches have been widened about four feet.

Puddling canal bottom.

On the opening of the canal it was found that there was some leakage through the bottom on Two-mile level at Waterford, this was puddled with clay and gravel and all leakage stopped.

Lock-houses.

Repairs have been made to houses at Hewitt's and lower two locks.

Tow-path and berme bank.

Two boats and crews have been employed most of the time during the season repairing and gravelling tow-path. Most of the tow-path on this section should be raised eighteen inches; when once raised to that height two boats and crews could keep it in good condition besides assisting in other repairs.

Cleaning out canal.

The prism of canal was thoroughly cleaned out and all loose stones removed on all the levels on the section.

Dams.

Repairs have been made to the Troy dam and apron of same. The planking of the dam is in bad condition and should be entirely replanked and the dam gravelled.

Slope and vertical wall.

Considerable vertical wall between Saratoga guard-lock and aqueduct, Schuylerville, has been relaid, and the slope wall on Sixteen, Four, Three and three-fourths and Two-mile levels repaired. There is but little good slope wall on this section.

Docking.

About 100 feet of new docking has been built in the Hudson river above Saratoga guard-lock, fifty feet new docking at gravel bed Schuylerville, and the docking on Sixteen and Three and three-fourth and Two-mile levels repaired.

Breaches.

June 9th a disastrous breach occurred in the high quicksand embankment at Coveville, probably caused by muskrats working in the bank. The water in the canal was seventeen feet deep and the

water in the cove at the foot of the bank ten feet; the point where the breach occurred was in the old original bank and had always been considered safe and had never been known to leak a drop. About 8:30 o'clock in the morning while persons and teams were constantly passing over it, the whole bank suddenly lifted and went out without a moment's warning, carrying out with it a loaded boat. The tow-path was badly damaged for 1,000 feet and for quite a distance entirely swept away. By actual measurement the amount of filling necessary to repair the damage and fill in the prism to canal bottom exceeded 25,000 cubic yards. The breach was repaired and the water let in on the 21st and navigation resumed the 24th.

Sunken Boats.

Sunday morning, May 25th, boat "Augusta" of Fort Ann, loaded with coal, sunk in upper two-lock (cause old and leaky), was pumped up and put on dry dock; navigation delayed four hours.

Navigation.

Five feet of water has been maintained on the lower mitre-sills of all the locks. It was found necessary to partly draw down the water and mow the eel-grass on a portion of the Two-mile level, the grass had become so thick that one team could not draw a loaded boat through it. With the exceptions above noted navigation has been good on this section. The Hudson river has probably been lower this season than ever before known, and had it not been for the work done at Saratoga guard-lock last winter it would have been impossible to have kept up the levels and navigation would have been suspended. With both feeders running to their full capacity and the lock-gates open it only supplied water enough for good navigation.

Remarks.

The tow-path embankment at Becker's lock leaks badly when the lock is allowed to stand full, although the lock was well pointed last spring and appears to be in good condition now. It should be thoroughly examined before the opening of navigation next spring. Road bridge No. 36, road bridge No. 38 (both in Stillwater village), road bridge No. 40, farm bridge No. 29, Cramer's farm, No. 61, and Chubb's farm bridge, No. 66, should be new the coming season. None of the new bridges put up last season and this have been painted; economy would seem to require that they be painted, as it would add two or three years to their existence.

New tumble-gates and hollow quoins will be required at upper and lower two-locks and new hollow quoins for tumble-gate at Flynn's and two new gates and balance beams at weigh-lock, Waterford, these are all on hand ready to put in. The bulk-head at waste-weir on One and one-fourth-mile level will need to be renewed and iron slide gates should take the place of the old wickets; the timber is on hand for this work.

DAVID F. BAKER,
Superintendent.

SECTION No. 2, CHAMPLAIN CANAL — GEO. B. SHERRILL,
Superintendent.

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of George B. Sherrill, Superintendent of Repairs of twenty-four miles of the Champlain canal, extending from Saratoga bridge to Dunham's basin, including the Glens Falls feeder, during the 266 days ending September 30, 1884.

Locks, whole number on section, 11.....	\$933 58
Lock-tending (exclusive of oil)	7, 516 60
Lock-gates, whole number on section, 39.....	870 70
Aqueduct, whole number on section, 1.....	20 50
Waste-weirs, whole number on section, 11.....	
Culverts, whole number on section, 7.....	
Weigh-locks, whole number on section, 1	
Farm bridges (wood), whole number on section, 43, }	1, 039 37
Farm bridges (iron), whole number on section	
Road bridges (wood), whole number on section, 32, }	
Road bridges (iron), whole number on section, 3... }	
Tow-path bridges (wood), whole number on sec., 8, }	
Foot-bridges (wood), whole number on section, 10, }	
State scows, whole number on section, 1.....	
Sluices	236 73
Ice breakers, whole number on section, 3.....	
Lock-houses, whole number on section, 8.....	
Work-shops, whole number on section, 2... ..	
Watch-houses, whole number on section, 8.....	
Store-houses, whole number on section, 3.....	
Raising and repairing tow-path and berme bank, not including repairs to slope walls	4, 295 75
Cleaning out bottom of canal during spring repairs..	2, 710 93
Dams (feet, 4,600), whole number on section, 3.....	
Vertical wall.....	296 83
Docking, etc.....	558 40
Watching canal.....	2, 113 56
Other miscellaneous expenditures.....	302 42
Superintendent's salary.....	1, 200 00
Total	<u>\$22, 095 37</u>

Locks.

The head of Lock No. 10, Glens Falls feeder, was taken up and relaid with masonry; new mitre-sills placed in Locks 2, 6, 7, 8 and

10, Glens Falls feeder, and Nos. 3 and 4, Champlain canal; pointing Locks 1, 2, 3, 4 and 5, Champlain canal, and making general repairs to all locks on section.

Lock-gates.

There has been inserted new tumble-gates at Locks 3 and 4, Champlain canal, and at No. 11, Glens Falls feeder; new toe posts at Bassett's and Moseskill locks, Champlain canal, and at Locks 2 and 4, Glens Falls feeder; also Lock No. 10, Glens Falls feeder, new upper gates; there are five new gates now on hand to be inserted after canal closes, making necessary repairs to lock-gates on section.

Breaches.

Numerous breaches in the banks of the canal have occurred; being faithfully watched by vigilant patrolmen, were early discovered and repaired; not an hour lost to navigation.

Bridges.

There have been new bridges built and put up at Sherman's and Haviland's on Glens Falls feeder; also at Hunt's and Hall's Five-mile level, Champlain canal; new bridge on Fort Edward feeder on highway from Fort Edward to Sandy Hill; new planking on all bridges on Glens Falls feeder; also the East St. Notre Dame Street Argyle bridges, and bridge over feeder, Fort Edward, and change bridge at Fort Miller; there has also been used 170 oak and pine timber floor timbers on same bridges; new foot bridges for Locks 3, 7, 9 and 13, Glens Falls feeder, Bassett's, Fort Miller and Moseskill locks, Champlain canal; there are two new foot bridges now on hand, making general repairs to all bridges on section.

Docking, piers and cribs.

Timber coping to the extent of several hundred feet has been placed on vertical walls on section; heavy pier of docking at head of Lock No. 10, and at foot of Lock No. 11, Glens Falls feeder; there has been built 500 feet of cribbing filled with stone to protect banks on Five-mile level, Champlain canal.

Sluice-ways.

The sluice-way at Fort Edward lock was taken up from the foundation and relaid in cement, and heavy protection walls built; head of sluices at Locks 2, 3 and 4, Glens Falls feeder, were taken up, tightly concreted and relaid.

Towing-path.

The towing-path has been raised on almost the entire length of Five-mile level; portions of One, Two and Three-mile levels, three

and one-half miles on Twelve-mile level, and a large portion of Glens Falls feeder, and at various places on section gravel has been left to be prepared for breaks and leaks; at every lock and sluice on feeder there has been deposited some material, to be prepared for cases of danger, liable at any moment to be called into use.

Sunken boats.

There was one lighter sunk on Glens Falls feeder; no delay to navigation.

Vertical wall.

Vertical wall rebuilt and repaired for 125 feet on Glens Falls feeder; 240 feet on Five-mile level, Champlain canal, and other portions repaired more or less, as required, on the entire section.

State scows.

The old boat used at Fort Edward was thoroughly repainted and caulked; on this section a new State scow boat built during past winter and placed on feeder, and has done efficient work there, and from Fort Edward to Dunham's Basin.

Navigation.

Not a day has been lost to navigation since canals were opened; not a boat aground during the season, and the usual twenty-four hours lost to the canals by cutting eel grass has been avoided; the entire section was thoroughly bottomed out, and strict attention to the wants of forwarders and boatmen given.

Water.

There has been maintained a depth of five feet of water on the entire section.

Watching canal.

Constant watchfulness has been required and received night and day by good and faithful men to prevent breaches; the banks in many places are very weak, high and dangerous.

STRUCTURES NECESSARY TO BE REBUILT.

Locks.

Lock No. 4, Glens Falls feeder, should be rebuilt; at all events the upper end should be taken up and relaid; your immediate attention is respectfully called to it.

Bridges.

Bridge section No. 2, eng. No. 88, bridge section No. 16, eng. No. 86, bridge section No. 18, eng. No. 90, and black house bridge, should be rebuilt; they require immediate attention; no timber on hand.

Culverts.

The berme bank at Landers' culvert should be strengthened and the culvert lengthened.

Sluice-ways.

Attention is called to the superstructure of sluice at the five combined locks, Glens Falls feeder; I am of the opinion that a new trunk should be built.

Waste-weirs.

The waste-weir on feeder at Carroll's basin (so called) should be enlarged and relaid, and one or two additional valves inserted, so that the feeder, in case of danger, can be speedily emptied.

Towing-path.

The banks on One, Three and Five-mile levels, Champlain canal, should be strengthened and repaired, as they are in a very dangerous condition.

Docking.

General repairs are needed on the entire section, particularly on One, Three and Five-mile levels.

Improvements.

Under the direction of Superintendent of Public Works the berme bank at head of Moseskill lock, at iron pipe culvert, at Blake's culvert, at Bell's culvert and at brick yard, all on Five-mile level, Champlain canal, a much-needed work has been done, banks strengthened, with a ten and twelve feet breadth on top, with a fifteen to twenty feet slope of clay and covered with gravel.

Leaks on Glens Falls feeder.

A portion of the wall near Glens Falls was pointed and many places relaid with Portland cement, about 120 barrels being used,

and the leaks on that portion almost entirely stopped. I am informed by the forwarders, and I know personally, that ten inches more of water is furnished for navigation. Not only that, but I am enabled to do away with the necessity of mowing the eel-grass, thereby saving to boatmen and forwarders much valuable time. The work should be progressed to completion. The other improvements now contemplated on the Glens Falls feeder will give the patrons of the canal what their interests demand — a sure and reliable source of navigation.

GEORGE B. SHERRILL,
Superintendent.

SECTION No. 3, CHAMPLAIN CANAL — SYLVESTER MAHAN,
Superintendent.

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of Sylvester Mahan, Superintendent of Repairs of twenty-two miles of the Champlain canal, extending from Dunham's Basin to Lake Champlain, during the 366 days ending September 30, 1884.

Locks, whole number on section, 8.....	\$125 35
Lock-tending (exclusive of oil).....	3, 590 25
Lock-gates, whole number on section, 26	1, 310 25
Waste-weirs, whole number on section, 9	288 20
Culverts, whole number on section, 3,.....	
Bridges of all kinds, 32.....	223 00
State scows, whole number on section, 2	
Store-houses, whole number on section, 1	
Timber sheds, whole number on section, 2.....	
Raising and repairing tow-path and berme bank, not including repairs to slope walls	6, 017 00
Cleaning out bottom of canal during spring repairs..	2, 297 42
Dams, whole number on section, 4.....	
Vertical wall.....	956 02
Docking, new, \$457.15 ; old, \$52.80.....	509 95
Watching canal	84 05
Superintendent's salary.....	1, 200 00
Total	<u>\$17, 357 99</u>

Locks.

General repairs to locks, pointing walls, cleaning out wells, etc.

Lock-gates.

I have inserted thirteen new gates this year ; four at guard-lock, four at wooden lock, and four at Fort Ann ; I also inserted at Fort Ann one of the condemned gates inventoried to me in place of one carried away, and will replace it with a new one before the opening of navigation next spring ; I have four new gates on hand, to be inserted at the close of navigation, two for Fort Ann and two for Whitehall ; put new beams on gates at Whitehall, also planked gates at Fort Ann and Whitehall.

Waste-weirs.

Rebuilt wing wall at Smith's waste-weir ; rebuilt pier at Dunham's, and put in new bulk-head.

Built new waste-weir and spill-way at Eastman's basin ; repaired waste-weir at head of locks at Whitehall.

Bridges.

Finished new bridge and placed it in position at Haskin's, No. 120 ; built new bridge and placed it in position at Baldwin's, No. 114.

Tow-path.

There has been a great deal of labor performed on tow-path, as the gravel and sand was washed off by the spring freshets, leaving the stone bare on Wood creek ; two boats and crews have been employed during the season of navigation in raising, repairing and strengthening the tow-path, except occasionally assisting the carpenters in repairing locks, bridges, etc.

Cleaning out bottom.

The bottom of canal and creek have been thoroughly cleaned and all bars and other obstructions removed.

Vertical wall.

I have built 280 feet of vertical wall at Smith's basin, and rebuilding and repairing tow-path wall on Twelve-mile level and Wood creek.

Docking.

Built 300 feet of new docking at Dunham's Basin, 800 feet of dock stick on wall on Wood creek ; built 275 feet of new dock at Smith's basin, and repaired docking on tow-path at Daly bend.

Structures necessary to be rebuilt and repaired.

I would recommend the sending of a dredge to dredge out the

mouth of the lower lock in Lake Champlain, as it is almost impossible to get loaded boats in lock when the lake is low, and also basin at Whitehall.

I would recommend the repairing of culvert at the Walker place.

I would also recommend a new bridge to replace the old one at Boardman street in village of Whitehall, No. 148.

I would recommend the widening of the canal between lower and middle lock at Fort Ann, as it is impossible for two boats to meet there.

I would recommend the rebuilding of the Empey waste-weir on Twelve-mile level.

I would recommend the relaying of tow-path wall on Twelve-mile level and Wood creek, as it has pushed into the canal in many places.

I would also recommend sending dredge to bottom out Twelve-mile level.

The water on this section has been kept up to the required height during the past season of navigation.

There has been no detention to navigation on this section during the past season.

SYLVESTER MAHAN,
Supt. Sec. 3, Champlain Canal.

SUMMARY of Disbursements by Wm. V. Van Rensselaer, Assistant Superintendent of Public Works, from October 1st, 1883, to March 1st, 1884.

	5. Erie.	6. Erie.	7. Erie.	1. Oswego	2. Oswego.	2. B. R.	1. B. R.	Cayuga and Seneca.	Ch'ango.	Middle Division.	Office. expens's.	Totals.
Aqueducts, miscellaneous repairs to.	\$1 25	...	...	...	...	...	\$40 31	...	\$1 59	...	...	\$43 15
Blacksmithing, miscellaneous.	12 17	\$21 94	\$3 40	...	\$61 82	\$16 76	30 90	\$24 30	...	...	...	171 29
Bank watching	...	9 48	...	...	10 00	...	...	...	...	...	...	19 48
Bridges, miscellaneous repairs to	430 95	137 77	178 24	...	112 07	81 30	212 78	48 60	20 40	...	...	1,222 11
Bridge (lift), Utica.	89 86	...	...	...	...	...	...	...	...	...	...	89 86
Bridge (swing), Syracuse	...	25 75	...	...	...	...	...	...	...	...	...	25 75
Bridge (swing), Fayetteville.	...	1 70	...	...	...	...	...	...	...	...	...	1 70
Bridges, Howard, Smith & Peck.	...	...	...	...	...	...	...	...	1,171 70	...	...	1,171 70
Labor, miscellaneous	13 00	70 99	53 00	...	34 72	...	20 40	35 05	...	\$4 75	...	231 91
Lumber for bridges.	49 15	850 11	86 75	...	373 61	227 04	283 10	350 75	113 42	...	...	2,333 93
Lumber and timber.	2,394 13	817 46	4 09	\$7 46	573 85	4 00	63 10	14 40	51 16	...	...	3,929 65
Hardware	38 18	76 41	20 10	11 61	26 27	18 99	66 10	31 62	11 08	...	...	300 36
Locks, repairs to	23 28	12 10	12 83	20 60	125 15	6 00	328 24	34 42	...	...	...	562 62
Reservoirs and feeders, repairs to.	6 00	1 20	...	...	...	...	6 00	...	533 61	...	...	546 81
Reservoirs and feeders, tending	...	245 00	...	...	...	...	...	...	425 00	...	...	670 00
Lines and oil	...	38 47	115 87	23 47	...	6 97	...	21 46	...	...	...	279 18
Stone for walls.	72 94	18 00	34 50	...	72 00	...	...	...	...	...	...	637 24
Telegraphing	512 74	1 97	24 76	...	...	5 56	4 18	...	...	...	\$21 89	74 86
Freights	16 50	49 10	2 00	...	...	...	117 36	...	4 80	67 80	9 80	269 57
Livery	18 71	...	9 50	...	1 00	11 50	41 00	...	...	11 00	...	109 40
Leak, Utica dry-dock.	35 40	...	...	...	...	...	...	...	...	...	...	66 00
Ice breaking	66 00	...	...	...	...	...	...	...	...	...	...	379 76
Dams, repairs to.	213 76	49 00	30 10	...	6 40	21 50	53 00	...	6 00	...	...	269 87
Scows, repairs to.	117 85	...	...	...	22 55	122 10	...	7 37	...	...	...	480 27
Lock No. 46, repairs to	108 57	...	336 33	...	...	...	35 37	...	...	...	...	470 14
Leak, Durhamville.	470 14	...	...	...	...	...	...	...	...	...	...	513 50
Rome dam.	513 50	...	...	...	...	...	...	...	...	...	...	176 50
Leaks	176 50	...	...	...	...	...	...	...	...	...	...	4 25
Lock-houses, repairs to	...	4 25	...	...	...	...	...	...	...	...	...	278 64
Expenses, miscellaneous.	...	81 31	69 11	...	28 26	74 25	20 45	5 26	...	...	28 81	101 01
Locks 47, 48 and 49, repairs to.	...	5 60	3 00	...	9 00	...	4 10	9 50	...	41 00	...	108 33
Lock 48, foundation to	...	108 33	...	...	...	...	...	...	...	...	...	727 86
Culvert, Nelson brook.	...	727 86	...	...	...	...	...	...	...	...	...	761 79
Lock 52, foundation to.	...	761 79	...	...	...	...	...	...	...	...	...	2,436 59
Battle Island dam.	...	...	2,436 59	...	...	...	...	...	...	...	...	126 88
High dam	...	...	...	...	126 88	...	...	...	...	...	...	451 20
State scow and dredge	...	...	...	...	451 20	...	...	...	...	...	...	340 57
Shed at State shop	...	...	...	...	...	340 57	...	...	...	...	...	35 00

Summary of Disbursements — (Continued).

	5. Erie.	6. Erie.	7. Erie.	1. Oswego.	2. Oswego.	2. B. R.	1. B. R.	Cayuga and Seneca.	Ch'ango.	Middle Division.	Office expens's	Totals.
Sluice at North Lake reservoir.....	\$1,002 14	....	....	....	....	\$1,002 14
Cutting eel grass,	32 25	....	....	....	....	44 75
Tow-path, repairs to	142 00	....	\$11 00	....	....	142 00
Culverts, repairs to.....	77 50	....	4 05	....	....	81 55
Lumber for locks.....	194 73	....	....	....	....	194 73
Docking.....	462 21	....	....	....	....	462 21
Harbor-master, Ithaca.....	\$45 00	....	....	....	45 00
Beacon-tender, Ithaca	45 00	....	....	....	45 00
Cement	\$675 00	....	675 00
Coal.	358 50	\$20 50	379 00
Dredge and tug repairs	286 42	....	286 42
Dredge and tug expenses....	1,718 30	....	1,718 30
Office, repairs to.	39 39	....	39 39
Telephone service.....	12 20	12 20
Stamps and post-office box rent..	32 00	32 00
Stationery	12 58	12 58
Janitor's salary	75 00	75 00
Clerk's salary	500 00	500 00
Gas.....	4 40	4 40
Totals	\$5,380 58	\$4,117 09	\$3,420 17	\$63 14	\$2,034 78	\$971 54	\$3,237 22	\$672 73	\$2,353 81	\$3,202 16	\$717 18	\$26,170 40

TABULAR STATEMENT of Expenditures on the Middle Division of the Canals of the State of New York, by William V. Van Rensselaer, Assistant Superintendent of Public Works, and by John Stebbins, his successor, during fiscal year ending September 30, 1884.

	5. Erie.]	6. Erie.	7. Erie.	1. Oswego.	2. Oswego.	1. B. R.	2. B. R.	Cayuga and Seneca.	Ch'ango.	Middle Division.	Office expens's.	Totals.
Aqueducts, miscel'ous repairs to.	\$1 25	21 94	\$3 40	.....	.....	\$40 31	.....	.....	\$163 34	.....	.....	\$204 90
Blacksmithing, miscellaneous....	28 07	21 48	.....	.....	\$115 09	30 90	\$16 76	\$24 30	.....	.....	.....	240 46
Bank watching .....	.....	137 77	218 38	.....	30 00	.....	.....	.....	.....	.....	.....	51 48
Bridges, miscellaneous repairs to.	709 98	.....	.....	\$168 36	112 07	992 61	81 30	124 22	279 03	.....	.....	2,823 72
Bridge (lift), Utica.	119 96	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	119 96
Bridge (swing), Syracuse .....	.....	203 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	203 41
Bridge (swing), Fayetteville.....	.....	1 70	.....	.....	.....	.....	.....	.....	1,171 70	.....	.....	1 70
Bridges, Howard, Smith & Peck..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,171 70
Labor, miscellaneous.....	13 00	70 99	53 00	.....	34 72	20 40	162 50	35 05	.....	\$4 75	.....	394 41
Lumber for bridges	49 15	800 11	409 75	372 86	2,459 18	283 10	825 28	350 75	113 42	1,437 22	.....	7,150 82
Lumber and timber	2,394 13	817 46	4 09	7 46	573 85	63 10	4 00	14 40	51 16	.....	.....	3,929 65
Hardware	76 52	168 29	58 50	66 37	99 56	188 97	48 24	31 62	11 08	.....	.....	749 15
Locks, repairs to	23 28	12 10	282 75	86 52	319 66	1,062 39	156 20	499 09	.....	.....	.....	2,441 99
Reservoirs and feeders, repairs to	6 00	99 73	.....	.....	.....	125 72	.....	.....	631 81	.....	.....	863 26
Reservoirs and feeders, tending..	.....	904 48	.....	.....	.....	.....	6 97	.....	868 33	.....	.....	1,772 81
Lines and oil	85 78	305 08	371 27	23 47	28 01	.....	.....	30 67	.....	.....	.....	851 25
Stone for walls	515 49	230 25	59 50	.....	264 30	.....	.....	.....	.....	.....	.....	1,069 54
Telegraphing	29 03	1 97	24 76	.....	.....	21 48	5 56	.....	.....	.....	\$86 77	169 57
Freights	44 27	55 18	29 27	.....	.....	117 36	61 78	.....	40 74	67 80	25 50	441 90
Livery	35 40	.....	9 50	.....	1 00	41 00	11 50	.....	.....	11 00	.....	109 40
Leak, Utica dry-dock.....	66 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	66 00
Ice breaking	213 76	49 00	30 10	.....	6 40	53 00	21 50	.....	6 00	.....	.....	379 76
Dams, repairs to	117 85	.....	.....	.....	22 55	.....	122 10	7 37	.....	.....	.....	269 87
Scows, repairs to	114 57	5 25	463 00	.....	42 58	99 62	12 35	27 98	.....	.....	.....	765 35
Lock No. 46, repairs to	596 46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	596 46
Leak, Durhamville	2,346 49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,346 49
Rome dam.....	176 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	176 50
Leaks .....	.....	49 05	.....	.....	.....	.....	.....	.....	.....	.....	.....	49 05
Lock-houses, repairs to. ....	.....	81 31	69 11	.....	28 26	20 45	74 25	5 26	.....	.....	.....	278 64
Expenses, miscellaneous.....	.....	5 60	3 00	.....	31 00	4 10	.....	9 50	.....	41 00	28 81	123 01
Locks 47, 48, 49, repairs to.....	.....	1,661 98	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,661 08
Lock 48, foundation .....	.....	727 86	.....	.....	.....	.....	.....	.....	.....	.....	.....	727 86
Culvert, Nelson brook.....	.....	761 79	.....	.....	.....	.....	.....	.....	.....	.....	.....	761 79
Lock 52, foundation.....	.....	.....	4,431 30	.....	.....	.....	.....	.....	.....	.....	.....	4,431 30
Battle Island dam.....	.....	.....	.....	.....	126 88	.....	.....	.....	.....	.....	.....	126 88
High dam.....	.....	.....	.....	.....	451 20	.....	.....	.....	.....	.....	.....	451 20
State scow and dredge.....	.....	.....	.....	.....	.....	.....	340 57	.....	.....	.....	.....	340 57

TABLE showing disbursements by sections on the Middle Division of the New York State Canals, by William V. Van Rensselaer, Assistant Superintendent of Public Works, and John Stebbins, his successor, and by Superintendents of Repairs, respectively, during the fiscal year ending September 30, 1884.

SECTIONS.	By Assistant Superintendent Van Rensselaer.	By Assistant Superintendent Stebbins.	Totals by Assistant Super- intendents.	By Super- intendents of Repairs.	Totals by Ass't Superintendents and Supt's of Repairs.
Section 5, Erie.....	\$5,380 58	\$9,612 17	\$14,992 75	\$16,756 95	\$31,749 70
Section 9, Erie... .	4,117 09	7,431 01	11,548 10	13,788 91	25,337 01
Section 7, Erie.	3,420 17	5,678 34	9,098 51	9,421 79	18,520 30
Section 1, Oswego.....	63 14	917 19	980 33	7,692 19	8,672 52
Section 2, Oswego... .	2,034 78	7,466 53	9,501 31	12,383 70	21,885 01
Section 1, Black River	3,237 22	6,326 97	9,564 19	21,979 82	31,544 01
Section 2, Black River	971 54	7,435 32	8,406 86	8,340 81	16,747 67
Cayuga and Seneca.....	672 73	1,917 30	2,590 03	6,236 21	8,826 24
Chenango	2,353 81	1,970 39	4,324 20	.....	4,324 20
Middle Division	3,202 16	5,228 32	8,430 48	.....	8,430 48
Middle Division, office expenses.....	717 18	1,083 73	1,800 91	.....	1,800 91
Totals	\$26,170 40	\$55,067 27	\$81,237 67	\$96,600 38	\$177,838 05

MIDDLE DIVISION.

REPORT OF ASSISTANT SUPERINTENDENT.

OFFICE ASSISTANT SUPERINTENDENT OF PUBLIC WORKS, }
 SYRACUSE, *November 10, 1884.*

HON. JAMES SHANAHAN, *Superintendent of Public Works :*

SIR — The assistant superintendent in charge of the Middle Division has the honor to submit his annual report for the fiscal year ending September 30, 1884.

The following canals and feeders are embraced in the Middle Division :

	Miles.
Erie canal, from east line of Oneida county to south line of Wayne county.....	97.02
Chenango canal, from Utica to first culvert south of Hamilton.....	31.00
Black River canal, Rome to Lyons Falls	35.33
Black River improvement, Lyons Falls to Carthage.....	42.50
Oneida Lake canal, Durhamville to South Bay.....	5.30
Oswego canal, Syracuse to Oswego.....	38.00
Seneca River towing-path, Mud-lock to Baldwinsville....	5.75
Baldwinsville side-cut .....	.75
Seneca River improvement, Baldwinsville to Jack's reefs..	11.75
Oneida River improvement, Three-River Point to Brewerton.....	20.00
Cayuga and Seneca canal, Montezuma to Cayuga and Seneca lakes	22.77
Ithaca inlet at Ithaca.....	2.00
	312.17
	312.17

NAVIGABLE FEEDERS.

	Miles.
Limestone feeder, Erie canal to Fayetteville.....	.80
Butternut feeder, Erie canal to Dunlap's mill.....	2.00
Camillus feeder, Erie canal to Camillus.....	1.00
Delta feeder, foot of Lock No. 9, Black River canal, to Delta.....	1.38
Black River feeder, Boonville to the head of pond at Forestport	12.09
	17.27
	17.27

For detailed statement of disbursements by the assistant superintendent on the Middle Division, see financial statement on another page of this report.

No serious breaks have occurred during the past fiscal year to interrupt navigation. The only one having occurred at Lyons Falls, on the Black River canal, June 8, which delayed navigation for several days over that portion of the canal.

A leak at Durhamville culvert in the fall of 1883, after the close of navigation, required an expenditure of \$2,346, and which was repaired before the opening in the spring. No further trouble is anticipated at this point.

A leak at the State street sewer, in Utica, was discovered on the 20th of September, and the level was partially drawn for a few hours. Additional security was given to the Nail creek culvert, in Utica, before the opening, by uncovering that part not heretofore stripped, and covering with stone and cement.

Of the more important work which has been paid for from this office, I may mention the new bridges placed at Starch factory culvert near Utica, and change bridge at Montezuma; bridge over Oneida river at Three-river point, and the material for six bridges on Black River canal; four on section 5; two on section 6; four on the Oswego, and one on the Cayuga and Seneca canals; also, thorough repairs have been made to all of the river bridges over the Black river at a cost of \$3,800; work has been commenced on the bridge over Beaver river, and a new and wider sidewalk to Peterboro street bridge, Canastota; also, iron beams have been purchased for bridges Nos. 19 and 49 on section 5, Erie.

A new apron has been built for Oriskany dam, and work commenced for one on the dam at Delta; a new abutment for the dam at Waterloo, which was damaged early in the season; a new aqueduct, at Solsville, on the Oriskany creek; a new bulk-head at Eaton brook and Solsville, on the Chenango feeder, and at Minetto and Phoenix, on the Oswego; the foundations to the locks on the Erie, 47 to 52, inclusive, were thoroughly repaired before the opening at a cost of \$6,800; work was also commenced on bulk-head at Skaneateles.

A new culvert over Nelson brook, at Erieville, has been built at a cost of \$761; quite an improvement has been made at Oak Orchard and Caughdenoy, on the Oneida river, by driving piles and rebuilding piers at a cost of \$1,680; \$1,000 has been expended in repairing road at Woodhull and North Lake reservoirs, and \$1,300 upon the sluice at North lake; \$1,687 has been expended on the river lock at Passenger's landing, and the work is now in progress.

Four extra scows were furnished for this division and have done good service in gravelling the tow-path and raising the low places on berme bank; no better expenditure of money has been made, and the work should be resumed another spring. The apron to the dam at Phoenix that was partially built some years ago should be finished.

The bulk-head at Fulton on both sides of the river ought also to be renewed.

Considerable pointing of the masonry has been done to the structures on the Erie and Black River canals, and more should be done next season.

Quite a number of new bridges will be required the coming year and it would seem at the present price of iron, it might be substituted to advantage for the ordinary wooden bridge as now constructed.

Two or more spans of the Richmond aqueduct at Montezuma need rebuilding and one span at Sugar river on the Black River canal. Lumber has been contracted for to replace the lock-gates which are likely to give away during the next season, as also for several bridges, and 30,000 feet for rebuilding the unfinished portion of the pier at Cayuga.

The dam at Waterloo, an old wooden structure, should be replaced by a stone dam; as the foundation is of rock, and good quarries very near, a substantial stone structure can be built at a reasonable cost as compared with wood.

A new waste-weir around the lock at Montezuma will have to be made during the coming winter.

The feeders in the eastern part of Madison county are badly filled and ought to be cleaned out during the winter or early spring, the walls about Bradly brook reservoir should be continued and the overflow gutter to Eaton reservoir relaid.

One of the pipes at DeRuyter reservoir leaks badly, and when the reservoir is drawn later in the season, must be repaired.

The Legislature of 1883 and 1884 made an insufficient appropriation for altering two bridges on the Chenango canal in the city of Utica; a larger appropriation should be made to carry out the intention of those desiring the change.

Although the present season cannot be considered an unusually dry one and the reservoirs were all full at the beginning of the season, it will tax all our resources to keep up the west end of the long level through the season.

Having had charge of the water supply for this division five years ago I can see a difference in most of the streams; they are continually diminishing and new reservoirs must be added. At present the project of a reservoir at Forestport is the most desirable; the appropriation, however, is not large enough to be of much use, and you cannot too strongly urge the Legislature for another appropriation.

Our attention is frequently called to the sewage of cities and villages being carried into the canal and its feeders; in some places, to such an extent is this done that nothing short of a pestilence that is sure to follow will awaken the inhabitants of such places to their folly.

JOHN STEBBINS,
Assistant Superintendent, Middle Division.

SECTION No. 5, ERIE CANAL—CHAS. GRAHAM, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of Charles Graham, Superintendent of Repairs of thirty-nine miles of the Erie canal, extending from east line of Oneida county to Peterboro street bridge, Canastota, including Oneida Lake canal, during the 366 days ending September 30, 1884.

Lock- tending (exclusive of oil).....	\$796 01
Aqueducts, whole number on section, 3.....	287 90
Farm, road and tow-path bridges, whole number on section, 19	1, 599 30
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	5, 796 41
Cleaning out bottom of canal during spring repairs..	4, 412 34
Dams (452 feet).....	861 70
Stacking lumber in yard, etc	153 07
Repairs of breaches.....	39 60
Watching canal and feeders	2, 056 11
Other work of consequence which does not come under any of the above heads.....	750 00
Superintendent's salary	1, 200 00
Total	<u>\$17, 952 44</u>

The only detention to navigation during the year was caused by a leak at the State street sewer at Utica, by the earth and quicksand giving away by the side of the sewer, the tow-path and pavement disappeared for a space of twenty-five by fifty feet. This was repaired temporarily, causing a delay to navigation for eighteen hours. The tow-path wall should be rebuilt, also a cut-off wall, as the soil in this locality is mostly quicksand.

Bridges.

Starch factory bridge has been rebuilt; Clark's farm bridge has been rebuilt; Genesee street bridge wood-work entirely new; I have also replanked nineteen bridges.

Lock 46, Utica.

Flooring worn out; concreted and replanked the same; there has also been two new lock-gates placed in the same.

Dams.

The banks and protection wall above and below the Rome feeder dam, for about 300 feet, were washed out by the spring freshet ;

that has been thoroughly repaired and a protection wall built above and below the dam; the Oriskany feeder dam has been repaired, new wooden abutments and apron, also Cowasselon feeder dam, I have repaired apron and walls.

Aqueducts.

Sauquoit creek aqueduct at Whitesboro, I have placed a waste gate on the berme side, but the entire side should be rebuilt; also in the Cowasselon creek aqueduct the trunk has settled about three inches.

Culverts.

Soon after the close of navigation the culvert at Durhamville gave out, and it was absolutely necessary to draw the level off to prevent a serious break; I found the water had made its way along the side of the arch and under the foundation of culvert and into the creek; this was thoroughly repaired by concreting over the arch and twenty-five feet back; Nail creek culvert leaked badly and has been repaired with concrete; also the culvert at the New London dry-dock.

Bridges.

Broad street bridge needs new floor; Catharine street bridge needs new floor; First street bridge needs new floor; John street bridge needs new floor; Hotel street bridge has been replaced; Seneca street bridge needs new floor; Washington street bridge needs new floor; Whitesboro street bridge needs new floor; Platts street bridge wants taking down; Utica and Whitesboro bridge needs iron needle beams; Crisman's farm bridge needs new bridge; Brainard's farm bridge needs repairs; Parkhurst farm bridge needs new bridge; Jay street bridge, Rome, needs new abutments (stone); Whitehall's culvert bridge needs new abutments (wood); Barnes' farm bridge needs new bridge; East Verona road bridge needs new bridge; New London road bridge needs new iron needle beams; Oneida lake swing bridge needs repairs; Lenox basin bridge needs new bridge; Oriskany feeder bridge needs new bridge; Oneida Lake canal bridges all in a bad condition.

Tow-path.

Tow-path the entire length of this level needs raising twelve inches as the water from the wash of the steamers is thrown upon the tow-path, keeping the same in a muddy condition.

CHARLES GRAHAM,

Superintendent.

SECTION No. 6, ERIE CANAL—ROBERT R. OSMOND, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of Robert R. Osmond, Superintendent of Repairs of thirty-three miles of the Erie canal, extending from Canastota and including Camillus feeder, during the 366 days ending September 30, 1884.

STRUCTURES OR WORKS, ETC.	Whole No. in section.	Cost of new structures.	Cost of rep's of old, etc.	Total new and old.
Locks.	4	.....	\$691 02	\$691 02
Lock-tending (exclusive of oil) .....	.....	.....	4,103 24	4,103 24
Lock-gates.....	.....	\$945 35	.....	945 35
Aqueducts.....	4	.....	3 20	3 20
Waste-weirs.....	5	.....	41 05	41 05
Culverts.....	15	.....	.....	.....
Weigh-locks.....	1	.....	23 20	23 20
Farm bridges (wood).....	7	.....	.....	.....
Road bridges (wood).....	15	292 02	114 40	406 42
Road bridges (iron).....	21	.....	332 93	332 93
Tow-path bridges (wood)....	2	.....	.....	.....
Tow-path bridges (iron).....	1	.....	.....	.....
State scows.....	2	88 40	5 25	93 65
Ice breakers.....	2	.....	.....	.....
Lock-houses.....	4	.....	.....	.....
Work-shops.....	2	.....	.....	.....
Watch-houses.....	2	.....	.....	.....
Store-houses.....	2	.....	.....	.....
Raising and repairing tow- path and berme bank, not in- cludi'g repairs to slope walls .....	.....	.....	1,688 88	1,688 88
Cleaning out bottom of canal during spring repairs.....	.....	.....	1,430 35	1,430 35
Dams (feet 963.72-100).....	7	.....	.....	.....
Slope wall. ....	.....	.....	783 85	783 85
Docking.....	.....	.....	924 35	924 35
Breaking ice and assisting boats in consequence of ice. ....	.....	.....	32 30	32 30
Watching canal.....	.....	.....	1,460 00	1,460 00
Tools, including shovels, picks, crowbars, axes, etc.....	.....	.....	27 70	27 70
Other work of consequence which does not come under any of the above heads, viz.:	.....	.....	.....	.....
Feeder tending.....	.....	.....	140 00	140 00
Reservoir.....	.....	.....	228 35	228 35
Stacking, transferring lumber, tools, etc....	.....	.....	366 55	366 55
Raising sunken boat....	.....	.....	18 65	18 65
Publishing abstracts, etc. ....	.....	.....	47 87	47 87
Superintendent's salary.....	.....	.....	1,200 00	1,200 00
Total.....	.....	.....	.....	\$14,988 91

Locks.

I have built and inserted two gates, Lock 46, Utica, section 5 ; have also built nine gates and inserted one tumble-gate in Lock 47 ; repairs, Lock 47, inserted four valves, planked upper gates, laid new flooring in lock, concreted foundation, pointed culvert and locks, and repaired machinery ; Lock 48, concreted foundation, pointed locks and culvert, repaired mitre-sill, laid new flooring greatest portion of locks, planked pier and a portion of apron ; Lock 49, planked upper gates, inserted two bumping beams, laid new flooring in locks, repaired mitre sill and built new pier at west end and repaired machinery ; Lock 50, inserted six valves, repaired mitre sills, planked portion of pier and apron, inserted new bumping beam and ordinary repairs during navigation.

Butternut aqueduct.

Repairs, planking.

Waste-weir, Pool's brook.

Repairs, raising and strengthening wing-walls to support bulk-head.

Weigh-lock.

Repairs, building partitions, walls, etc, in assistant superintendent's office.

Road bridges, wood.

Built Kirkville and Pool's brook, new ; repaired Gere's, Burdick, White's and Herrick's bridges, inserted joists, planking, etc.

Road bridges, iron.

Repairs to, planking, inserting new joists and coping, West street, Lock street, Williams street, Grape street, Warren street and Geddes street bridges in Syracuse.

Division scows.

Building tool boxes, tables, tillers, etc.

Ordinary repairs, State scow.

Gravelling some three miles of tow-path between Syracuse and Amboy ; strengthening tow-path bank at Manlius, Chittenango, Beebe's bridge and Canastota.

Bottoming out canal.

Spring repairs were made between Camillus and Amboy ; spring repairs were made between Lock 50 and Geddes ; spring repairs

were made between Geddes and Pine street, Syracuse; spring repairs were made between Chittenango and New Boston; spring repairs were made at Canastota.

Slope wall.

Spring repairs were made between Syracuse and Geddes; spring repairs were made between Headstons and Orville; spring repairs were made between Orville and Manlius; spring repairs were made between Manlius and Pool's brook; spring repairs were made between Pool's brook and Bolivar; spring repairs were made between New Boston and Canastota.

Docking.

Some 60,000 feet, board measure, has been laid in Syracuse, Geddes, Nine-mile creek and other points on section.

Watching canal.

Four men have been employed upon the section to watch all weak banks, and to give their entire time in protecting the canal during navigation.

Feeder tending.

Camillus, Butternut, Limestone and Chittenango feeders.

Otisco reservoir.

Repairs were made to slope wall at dam, etc.

Jamesville reservoir.

Repairs to state house, new siding, shingling, etc.

Depth of water over sills.

There has been a uniform depth of water maintained over all mitre-sills of seven feet, with the single exception of Lock 47, upper sill; the water on the Rome level was from four to six inches low for two or three days, and the cause is unaccountable, as there was the usual amount of water supply in level at that time.

Navigation.

There has not been any interruption to navigation during the fiscal year upon section 6, Erie canal.

ROBERT R. OSMOND,
Superintendent.

SECTION No. 7, ERIE CANAL—JOHN H. ELDRIDGE, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of John H. Eldridge, Superintendent of Repairs of thirty-one miles of the Erie canal, extending from west bank of Camillus feeder to east line of Wayne county, during the 366 days ending Sept. 30, 1884.

Locks, whole number on section, 2.....	\$479 48
Lock-tending (exclusive of oil).....	2, 332 30
Lock-gates, whole number on section, 16.....	
Aqueducts, whole number on section, 5.....	108 96
Waste-weirs, whole number on section, 3.....	
Culverts, whole number on section, 21.....	
Farm bridges (wood), whole number on section, 4. }	1, 011 45
Foot bridges (iron), whole number on section, 1... }	
Road bridges (wood), whole number on section, 10. }	
Road bridges (iron), whole number on section, 12. }	
Tow-path bridges (wood), whole number on section, 2 }	
State scows, whole number on section, 1.....	
Small boats, whole number on section, 1.....	
Ice breakers, whole number on section, 1.....	
Under water excavators, whole number on section, 1.	
Lock-houses, whole number on section, 2.....	
Work-shops, whole number on section, 1.....	
Watch-houses, whole number on section, 2.....	
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	1, 386 43
Cleaning out bottom of canal during spring repairs..	1, 340 95
Cleaning on feeders.....	250 64
Dams, whole number on section, 4.....	
Slope wall.....	276 38
Docking.....	220 06
Repairs of breaches.....	155 31
Breaking ice and assisting boats in consequence of ice	43 79
Watching canal.....	1, 045 00
Tools, including shovels, picks, crowbars, axes, etc ..	42 80

Other work of consequence which does not come under any of the above heads, viz. :

Side ditching.....	60 00
Snubbing-posts.....	41 47
State shop fence, etc.....	29 61
Abandoned boats.....	86 65
Publishing and filing abstracts.....	31 62
Hunting muskrat holes.....	97 50

New sluices.....	\$182 67
Mowing weeds.....	198 72
Superintendent's salary.....	1, 200 00
Total	<u>\$10, 621 79</u>

The general cleaning and bottoming of the canal and feeders on this section received more general attention this than last season, and such places as were obliged to be left for want of time last year received it this. No breaks have occurred or any detentions or delays of any kind have happened on this section during the season, and the levels have been kept up to about high-water mark during the entire season.

On the 16th of June one of the new scows which were intended for the various sections for gravelling purposes only, and under direct supervision of the Assistant Superintendent of Public Works, reported for duty on this section, since which time it has been engaged raising berme banks and gravelling tow-path, more especial attention having been given to berme banks, though one and one-fourth miles of tow-path have been raised about two feet, while some 5,000 feet of berme bank has received similar attention. And with a continuance of this work it will be but a short time before the tow-path will be restored to a good condition.

The bridges, with the exception of that at May's Point, which should be rebuilt, are in a general good condition. During the winter a new change bridge was constructed at Montezuma, and all the others have had a general overhauling, newly painted and numbered. The abutments of the same have all been repointed and the masonry all put in good condition; and aside from some new planking, which will receive that attention before the close of navigation, I now consider them all in a safe and sound condition.

Immediately after the close of the fiscal year of 1883 a leakage was discovered in Lock 52, but with the assistance of a diver the floors were secured without drawing the water, and by placing an additional force of lockmen on duty, so as to empty and fill both locks at one time, all damage was averted. In the month of December, 1883, the work of overhauling was commenced; the old timbers were all removed, the bottom thoroughly grouted, and aside from the original walls, which were also repointed, every thing was new, with one new pier at west end of lock, while the one at east end received needed repairs, and I now consider them as good as new. At Lock 51 aside from a few general repairs and repointing the walls little or nothing has been done; but before next season it should receive new floors and may, perhaps, need some grouting, and at least one if not both piers should be rebuilt. This lock has not received a general overhauling in several years.

The mowing of weeds have received general attention as required by law, and large quantities of eel-grass have been removed from the feeders.

In the spring the walls received especial attention, while later in the season the damage done the walls by a too fast speed of steam and excursion boats. The washout on upper part of walls was also repaired, though much of this kind of work is still needed on berme side of canal.

The waste-weirs are in good condition, and the general spring repairs are all that is needed; but the various aqueducts need more or less attention, that of Montezuma will receive the proper attention at once, the timbers for the same having already been delivered. Those at Port Byron, Cranebrook, Centerport and Jordan ought to have a thorough overhauling, as some need new gates, others sides and flooring.

Owing to the demands for masons I was unable to give as much attention to the masonry work as was needed, and aside from the repointing of all the bridges, and the Centerport and Port Byron aqueducts, I was unable to proceed further with this work, but would suggest a continuance of it until all the masonry be repointed and put in good condition.

Owing to repairs at Lock 52 during the winter the Montezuma level was not as full as usual, which caused an increase of the muskrats burrowing into the banks, and more damage to the banks and walls was done, and, as suggested in my last annual report, think it advisable that as much water as possible be retained in the canal during the winter.

JOHN H. ELDRIDGE,
Superintendent.

SECTION No. 1, OSWEGO CANAL — JOHN LEAHEY, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of John Leahey, Superintendent of Repairs of about thirty-three miles of the Oswego canal, extending from Syracuse to Three-River Point, including Seneca River towing-path and Baldwinsville canal, during the 366 days ending September 30, 1884.

Locks, whole number on section, 7	\$392 01
Lock-tending (exclusive of oil).....	1, 969 51
Lock-gates, whole number on section, 26.....	57 70
Waste-weirs and sluices, whole number on section, 3.	389 96
Culverts, whole number on section, 4.....	26 92
Farm bridges (wood), 12.....	111 62
Road bridges (wood), whole number on section, 11..	219 85
Road bridges (iron), whole number on section, 9....	487 44
Tow-path bridges (wood), whole number on section, 4,	131 69
Tow-path bridges (iron), whole number on section, 1.	
State scows, whole number on section, 2.....	22 00

Ice breakers, whole number on section, 1.....	\$13 50
Lock-houses, whole number on section, 5.....	
Work-shops, whole number on section, 1.....	
Timber sheds, whole number on section, 1.....	
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	1, 224 27
Cleaning out bottom of canal during spring repairs..	1, 036 50
Dams (feet, 400), whole number on section, 1.....	51 00
Slope wall.....	62 03
Docking.....	856 25
Repairs of breaches.....	29 25
Breaking ice and assisting boats in consequence of ice.	25 55
Watching canal.....	130 00
Setting snubbing posts.....	13 00
Boating lumber.....	220 63
Sand chests.....	13 52
Painting bridges.....	91 50

Other work of consequence which does not come under any of the above heads, viz.:

Publishing and recording abstracts.....	37 00
Miscellaneous expenditures.....	79 49
Superintendent's salary.....	1, 200 00
Total	<u>\$8, 892 19</u>

Locks.

The locks have received the following repairs during the season of 1884: Lock No. 1, one new balance beam, and ordinary repairs; the upper gates of Lock No. 2 have been replanked, and necessary repairs made; to Lock No. 3, general repairs, and Lock No. 4 (side-cut), two new lower gates, and the ordinary repairs upon the upper ones.

The following repairs will be needed to place the locks in good condition for the coming season: Lock No. 1, two lower gates and one balance beam; Lock No. 2, new upper gate; Lock No. 3, new upper mitre-sill and bumping beam; Lock No. 4, two new mitre-sills; Lock No. 5, general repairs, and Baldwinsville lock should receive new gates, hollow quoins, coping, etc.

Bridges.

On James street bridge one roadway has been newly planked; Division street bridge, newly wooded throughout; Salina street bridge, above Lock No. 1, has been replanked, and the necessary material prepared to rewood the same; sidewalks have been laid upon Park street bridge, the railings repaired, etc.; Clark's bridge, entirely rebuilt; Baldwinsville bridge, replanked; and Greenpoint

bridge and tow-path bridge, planked where necessary; all of the bridges on the section have been painted.

The Berry bridge, as stated in last year's report, should be replaced with a new structure and new wooden abutments; also the Avery bridge and the Liverpool bridge should be rebuilt.

The following bridges need new planking: Willow street bridge, Bear street bridge, Salina street bridge over south cut, and Spring street bridge; the tow-path bridge, below Lock No. 3, requires one new chord, and the float tow-path bridge over Seneca river should be replanked and the approaches rebuilt.

Sluices.

Many of the river sluices must be rebuilt and the others repaired, with new stringers, planks, etc.

Docking.

In general repairs throughout the section, 1,500 lineal feet of docking has been used; 2,000 lineal feet of docking and 1,500 feet of ties will be required for ordinary repairs during the coming season.

State scow.

I would renew the recommendation made in my last report, that a new scow be built during the coming winter.

Tow-path.

Considerable labor has been expended in gravelling the tow-path, raising and repairing bridge approaches, and cutting brush upon the river levels.

The Baldwinsville dam is in fair condition.

The Syracuse and Liverpool levels should be cleaned during the winter at various points where material has been washed in.

Six and one-half feet of water over the mitre-sills at Mud lock and Baldwinsville, and seven feet six inches at Lock No. 3, have been maintained, and navigation has not been interrupted during the season.

JOHN LEAHEY,
Superintendent.

SECTION No. 2, OSWEGO CANAL — L. T. RICHARDSON, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of L. T. Richardson, Superintendent of Repairs of twenty-three miles of the Oswego canal, extending from Oswego to Three-River Point; also the Oneida River improvement, twenty miles, during the fiscal year ending September 30, 1884.

STRUCTURES OR WORKS, ETC.	Whole No. on section.	Cost of new structures.	Cost of rep'rs of old, etc.	Total new and old.
Locks.....	21	.....	\$272 89	\$272 89
Lock-tending (exclusive of oil) .....	.....	.....	6,407 92	6,407 92
Lock-gates.....	84	\$351 50	461 90	813 40
Aqueducts	1			
Waste-weirs.....	8	91 99	7 00	98 99
Culverts	4			
Weigh-locks.....	1			
Road bridges (wood).....	7	797 02	388 35	1,185 37
Road bridges (iron).....	6			
Tow-path bridges (wood)....	5			
Tow-path bridges (iron)....	1			
State scows.....	2	.....	19 25	19 25
Small boats.....	1			
Ice breakers.....	1			
Lock-houses.....	17	.....	93 95	93 95
Work-shops.	1	.....	20 50	20 50
Timber sheds.....	1	223 36	.....	223 36
Raising and repairing tow- path and berme bank, not including repairs to slope walls.....	.....	.....	452 09	452 09
Cleaning out bottom of canal during spring repairs.....	.....	.....	36 50	36 50
Dams (feet 3,386).....	7	.....	85 21	85 21
Slope wall.....	.....	384 31	.....	384 31
Docking.....	.....	.....	376 70	376 70
Watching canal .....	.....	.....	122 55	122 55
Wheel-barrows .....	.....	.....	12 75	12 75
Other miscellaneous expendi- tures.....	.....	.....	29 80	29 80
Other work of consequence which does not come under any of the above heads, viz.:				
Printing abstract.....	.....	.....	.....	45 75
Bulk-heads.....	.....	1,237 75	56 00	1,293 75
Sluices.....	51	.....	41 99	41 99
Piers.....	.....	.....	280 70	280 70
Unloading and piling lumber.....	.....	.....	.....	85 97
Superintendent's salary.....	.....	.....	.....	1,200 00
Total.....	.....	.....	.....	\$13,583 70

Locks.

General repairs have been made to all the locks ; a timber dam was put in at the head of Lock 13 and the well cleaned out ; also two new lower gates at Lock 11, and two new upper gates at Oak Orchard lock, and are now in fair condition, but will need the following repairs to place them in good order for the coming season, for which the timber is now on hand ; Lock No. 7 was not repaired last spring on account of the want of time and sufficient apparatus to pump it out ; should be coffer-dammed and pumped out as soon as navigation closes, and two new mitre-sills, new bottom, and new lower gates put in Caughdenoy lock ; Locks 7, 8 and 15, one new balance beam each ; Locks 6 and 8 new lower gates ; Locks 12 and 17 new upper gates.

Bridges.

Three-River Point bridge, No. 13, a six-span wooden structure has been rebuilt : Caughdenoy swing bridge, new foundation ; Schroepel swing bridge, four new needle beams, new floor joist and replanked ; First street bridge, Fulton, No. 21, new sidewalk ; tow-path and road bridge No. 24, new floor joist and replanked, also necessary repair to others. The following bridges which are to be rebuilt as soon as practicable, for which the timber is now on hand or ordered : Phoenix road bridge, No. 15, Phoenix road bridge and tow-path, No. 16, Hinmanville road bridge, No. 18, and Schroepel swing bridge ; also new chords to Littlefield tow-path bridge.

Dams.

The bulk-heads at Minetto, Oswego Falls and Phoenix dams have been rebuilt, using about 20,000 feet B. M. oak, and are now in thorough repair ; the timber is on the spot and work has commenced rebuilding the bulk-head at the west end of Fulton dam ; the bulk-head on the east side of Oswego dam is in bad condition, and I would recommend it to be rebuilt the coming season, also the unfinished portion of the apron to Phoenix dam (163 feet) be rebuilt the coming season ; about 1,000 yards of broken stone and gravel have been put on High dam the past season, and I would recommend that a like quantity be put on this fall to insure it against leaks which might endanger its stability.

Walls.

About 150 feet, lineal, of old docking has been taken down and relaid in a substantial manner with stone at a less cost to the State than docking timber, and of an unquestionably longer duration ; I would, therefore, recommend that wherever it is practicable to use stone, that it be substituted for timber.

Sluices.

General repairs have been made to sluices, and two of them rebuilt.

Piers.

The piers at High dam, Minetto dam and Oak Orchard have been rebuilt, using about 40,000 feet of hemlock, and are now in good repair.

Docking.

Necessary repairs have been made all along the section.

Timber shed.

A new timber shed has been built at Fulton, 20x80 feet.

Tow-path.

The tow-path has been repaired with gravel and ashes at Fulton, Oswego and on level 14.

Lock-houses.

The lock-houses on this section (seventeen in number) are in bad condition, with the exception of lock-house No. 6 which is new, and lock-house at guard-lock No. 1, 4 and Lock 18, which have been thoroughly repaired.

Waste-weirs.

Two waste-weirs have been rebuilt, one on level 17 and one on level 19.

L. T. RICHARDSON,
Superintendent.

SECTION No. 1, BLACK RIVER CANAL—PETER PHILLIPS,
Superintendent.

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of Peter Phillips, Snperintendent of Repairs of thirty-seven and one-half miles of the Black River canal, extending from Rome to foot of Lock No. 71, at Boonville, including Forestport and Delta feeders, during the 366 days ending September 30, 1884.

STRUCTURES OR WORKS, ETC.	Whole No. on section.	Cost of new structures.	Cost of rep'rs of old, etc.	Total new and old.
Locks	73	.....	\$3,633 60	\$3,633 60
Lock-tending (exclusive of oil) . . . . .	.....	.....	7,648 15	7,648 15
Lock-gates	276	\$976 73	2,058 70	3,035 43
Aqueducts.	6	.....	178 56	178 56
Waste-weirs.....	9	.....	20 00	20 00
Culverts.....	12	.....	331 00	331 00
Farm bridges (wood).....	18	643 22	676 88	1,320 10
Farm bridges (iron). . . . .	.....		
Road bridges (wood).....	23			
Road bridges (iron).....	8			
Tow-path bridges (wood)....	.....	.....	.....	.....
Tow-path bridges (iron)....	1			
State scows.....	2	.....	97 00	97 00
Small boats.....	2			
Lock-houses	23	.....	97 00	97 00
Work-shops.....	2	.....	.....	.....
Piling machines.....	1	.....	.....	.....
Raising and repairing tow path and berme bank, not including repairs to slope walls.....	.....	.....	1,817 16	1,817 16
Cleaning out bottom of canal during spring repairs.....	.....	.....	1,421 37	1,421 37
Dams.....	.....	.....	472 80	472 80
Docking.....	.....	.....	57 00	57 00
Breaking ice and assisting boats in consequence of ice. . . . .	.....	.....	385 08	385 08
Watching canal.....	.....	.....	412 26	412 26
Other work of consequence which does not come under any of the above heads, viz.:	.....	.....	.....	.....
Removing bars.....	.....	.....	38 76	38 76
Repairing sluice near Boonville.....	.....	.....	55 00	55 00
Repairing and tending reservoirs.....	.....	.....	1,056 55	1,056 55
Superintendent's salary.....	.....	.....	.....	1,200 00
Total.....	.....	.....	.....	\$23,179 82

Locks.

During the spring repairs, the joints of the masonry of Nos. 21, 38, 41, 42, 43, 59, 60, 62, 64, 66, 67, 68, 70 and 71 were repointed with cement to prevent leakages; many others are in need of this and should be repointed next spring; Nos. 59 and 60 were widened by dressing off the face-stone at points where they were narrowest; however, they still cause much trouble, and No. 60 should be taken down this fall and rebuilt the coming spring; new mitre-sills were inserted at Nos. 15, 20, 36 and 49, and two at No. 23; all locks and sluices have been generally repaired and kept in a navigable condition.

Lock-gates.

The gates on this section have received the necessary attention they demand, and are at present in a better condition than for several years past; there have been forty-two new gates framed and ironed, and forty inserted as follows: One each at Nos. 2, 3, 5, 10, 14, 22, 23, 29, 31, 33, 35, 37, 38, 40, 42, 53, 56, 59, 63, two each at Nos. 11, 13, 17, 32, 39, 65, and three each at Nos. 1, 12 and 43; there are eleven ready for immediate use, and oak timber on hand sufficient for thirty-three more; nearly all have been repaired by new arms, balance beams, bumping plank, etc.

Aqueducts.

The needle-beams supporting Wells creek aqueduct, being in an unsafe condition, were replaced by new ones previous to the opening of navigation; the timber being of an unusual size (12 by 14 and 42 feet long) much difficulty was experienced in procuring them. Material has been ordered and will be delivered this fall for entire new wood-work to be put in next spring. Various repairs have been made to others during the season.

Waste-weirs.

New bridges have been built over six waste-weirs, as follows: Nos. 1, 2 and 3 on Forestport feeder, and near Locks No. 39, 70 and 71 on canal.

Culverts.

At the time of my last annual report the outlets of culverts near Lock No. 21 and A. Hall's were being cleaned; this work was thoroughly done, together with building 200 lineal feet of new docking at the first, and overhauling and rebuilding 500 lineal feet of slope wall at the second, to prevent the "washing in" of gravel and slate, and thereby obstructing the stream.

State scows.

The two scows on this section were painted last spring, and one repaired by new timbers and planks on bow and stern.

Bridges.

Twelve new bridges have been framed and erected as follows : Hurlburt's, Lee, Pitcher, Deifendorf, Lobdell's, Hart's and Dutch Hill road bridges, and Roberts', J. Waldo's, A. Waldo's farm bridges ; also two farm bridges over Delta feeder. Ordinary repairs have been made to many, and nearly all have been painted.

Material has been purchased, to be delivered this fall, for eight new bridges which should be built the coming winter.

Lock-houses.

The houses at Nos. 36, 38, 43, 46, 70 and Forestport have received needed repairs ; others should be repaired at once.

Repairing tow-path.

The tow-path has received extensive repairs by raising and strengthening with gravel and slate ; this improvement was much needed, especially around combined and other locks and on Forestport feeder.

At present the tow-path is in an unusually good condition.

Cleaning prism.

Much attention was paid to removing sediment during the spring repairs, especially at the Lansing-kill feeder, near Lock No. 33, where slate bars usually form, causing much trouble to boatmen and state hands as well. By thoroughly cleaning the pond, and changing the course of the stream, this delay was entirely avoided, and boatmen have suffered no detention from bars during the season.

Dams.

For several years the dam at the head of Delta feeder has been a source of much trouble and expense owing to the poor foundation ; the apron has been undermined and carried away many times by high water during the spring freshets. One hundred piles have been driven in three rows across the river to secure a firm foundation, 14 by 206 feet, upon which is morticed 12 by 12 timbers crosswise, and 10 by 12 timbers lengthwise, securely bolted and pinned to the piles and filled with 200 tons of stone ; this is covered with 17,304 feet of six-inch plank, fastened to the timbers with twelve-inch spikes.

The dam is being refaced 7 by 206 feet, and new coping will be put on, 6 by 206 feet ; the work is to be completed October 15, when 50,000 feet of hemlock will have been used.

Docking.

New docking and bulk-head have been built at the head of Lock No. 70; many others require this, and timber has been delivered to repair them this fall. About thirty lineal feet of stone docking on tow-path side of Rome junction must be rebuilt next spring.

Slope wall.

About 200 lineal feet of slope wall has been built at foot of tow-path slope near Dunn brook, to prevent the Lansing-kill creek from cutting away the bank.

Reservoirs.

The five sluices at North Lake reservoir were rebuilt last winter, and White Lake reservoir has been slightly repaired; considerable work has been done on the roads leading to Woodhull, North and Sand lakes, and an equal amount of money expended on them next season will put them in good condition.

The following material has been furnished for section 2, Black river:

Nine lock-gates, complete with irons, bolts and pins.

Thirty shackle bolts.

Twelve twelve-inch bolts.

Four sixteen-inch bolts.

Two connecting rods.

Water supply.

At the beginning of navigation the reservoirs were all full, but water having been drawn from them constantly since June 7, the supply has been nearly exhausted. August 15 to 18 the demand for more water for the Erie could not be supplied, owing to the extreme heat and the great evaporation consequent upon the long distance from the reservoirs to the Foresport pond, and, as a result, navigation on both Black River and Erie canals was almost impossible for the above-mentioned three days; however, enough remains in Woodhull reservoir, so that with the fall rains no serious shortage is anticipated. It is to be hoped by all persons interested in the canals of the State that an additional appropriation will be made by the Legislature of 1885, sufficient to complete the new dam and reservoir at Forestport, thereby securing an adequate supply of water to obviate the above delays.

PETER PHILLIPS,
Superintendent.

SECTION No. 2, BLACK RIVER CANAL — JAMES GALVIN,
Superintendent.

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of James Galvin, Superintendent of Repairs of fifty-three and one-half miles of the Black River canal, extending from foot of Lock No. 71, at Boonville, to Carthage, during the 366 days ending September 30, 1884.

STRUCTURES OR WORKS, ETC.	Whole No. on section.	Cost of new structure.	Cost of rep's of old, etc.	Total new and old.
Locks	40	.....	\$1,109 05	\$1,109 05
Lock-tending (exclusive of oil) .....	.....	.....	3,320 77	3,320 77
Lock-gates.....	130	.....	646 50	646 50
Aqueducts.....	1			
Waste-weirs	2			
Culverts... ..	7			
Farm bridges (wood).....	18	\$111 50	197 45	308 95
Farm bridges (iron).....	.....		
Road bridges (wood).	7			
Road bridges (iron).....	7			
Tow-path bridges (wood)....	1			
Tow-path bridges (iron)....	.....		
Lock houses.....	12	.....	58 00	58 00
Work-shops	1			
Bridge-houses.....	3			
Raising and repairing tow- path and berme bank, not including repairs to slope walls.....	.....	.....	379 80	379 80
Cleaning out bottom of canal during spring repairs.....	.....	.....	367 47	367 47
Dams. ....	.....	.....	25 00	25 00
Repairs of breaches.....	.....	.....	262 12	262 12
Breaking ice and assisting boats in consequence of ice. ....	.....	.....	46 50	46 50
Other work of consequence which does not come under any of the above heads, viz.: Bridge tending.....	.....	.....	683 87	683 87
Clerk hire. ....	.....	.....	200 00	200 00
Dredge force on Black river improvement....	.....	.....	932 78	932 78
Superintendent's salary.....	.....	.....	.....	1,200 00
Total .....	.....	.....	.....	\$9,540 81

Locks.

Previous to the opening of navigation many locks on this section were "pointed up" with cement to prevent leakages; others will require "pointing" next spring. The mitre-sill at No. 83 had occasioned much trouble for several years, the foundation being of shell rock, the bolts would soon become loose and allow the sill to raise up, thereby delaying navigation; this was also repaired last spring and has caused no detention since. Bushes' lock on Black River improvement is receiving extensive repairs, being retimbered and replanked to the low-water line on either side.

Lock-gates.

Nearly all lock-gates have received necessary repairs, such as new balance beams, bumping plank, arms, etc.; nine (9) old gates have been removed, and new ones inserted as follows: one each at Nos. 72, 75, 81, 86, 92, 93, 97, and two at No. 102; four new gates are being inserted at Bushes' lock on Black River improvement.

Bridges.

One new farm bridge has been built at Post's farm, and a new "change" bridge below Port Leyden; general repairs have been made to many others by replanking, new abutments, etc.; the bridges over Black river have been repaired as follows: Parker's bridge, new floor timbers, replanked and repaired track for swing; Beaches' bridge, new floor timbers, replanked and repaired track for swing; Glendale bridge, replanked and repaired track for swing; Carthage bridge, part new floor timbers, replanked and strengthened; Illingworth bridge, new needle beams, floor timbers and turn-table, replanked and painted; a new bridge is in course of construction over Beaver river at Naumburg.

Lock-houses.

About one-half the houses on this section have been repaired by shingling, plastering, repairing chimneys, etc.; others should be attended to before cold weather.

Tow-path.

The tow-path has been raised in many places and sink holes filled with gravel boated from Port Leyden and stone from Sugar river, and at present is in a good condition.

Cleaning prism.

Particular attention was paid to cleaning the prism of canal during the spring repairs, not only to removing sediment but to blasting and sinking stone wherever practicable, and as a consequence very little if any difficulty has been experienced from boats grounding on bars or stone.

Breaks.

A break occurred at Lyons Falls, between Locks Nos. 107 and 108, on the morning of June 8, caused by the giving away of a sluice and about fifty (50) feet of the tow-path; this was promptly repaired and navigation resumed June 15.

Dams.

The dam on Moose river at "Old Forge" was repaired last fall, as recommended in my last annual report.

Miscellaneous.

The dredge has been employed constantly on Black River improvement during the season, and considering the scarcity of water and extreme hot weather the river has been kept in the best possible condition. I have had the following material from section 1, Black River canal: Nine lock-gates complete with irons and pins, thirty shackle bolts, twelve twelve-inch bolts, four sixteen-inch bolts, two connecting rods.

JAMES GALVIN,
Superintendent.

CAYUGA AND SENECA CANAL — D. W. COLVIN, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of D. W. Colvin, Superintendent of Repairs of the whole of the Cayuga and Seneca canal, extending from Montezuma to Geneva, during the 366 days ending September 30, 1884.

Locks, whole number on section, 11	\$732 93
Lock-tending (exclusive of oil).....	2,735 10
Lock-gates, whole number on section, 44.....	201 10
Waste-weirs, whole number on section, 2	
Culverts, whole number on section, 9.....	
Farm bridges, wood, whole number on section, 1....	
Road bridges (wood), whole number on section, 7 ...	226 47
Road bridges (iron), whole number on section, 10 ...	227 32
Tow-path bridges (wood), whole number on section, 26	110 87
State scows, whole number on section, 1	12 00
Lock-houses, whole number on section, 7.....	
Work shops, whole number on section, 1.....	
Repairs to Montezuma feeder	15 75
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	757 34
Dams (980 feet), whole number on section, 5	362 69
Docking	139 43
Watching canal	299 35

Cutting weeds, eel-grass, etc	\$201 22
Other miscellaneous expenditures.....	214 64
Superintendent's salary.....	1,200 00
Total	<u>\$7,436 21</u>

New lock-gates.

Eight new lock-gates, constructed during the year, preceding the opening of navigation last spring, were brought into use early this season; four were placed in Lock No. 10 (at Cayuga), two in Lock No. 11, and two in Lock No. 2; the last-named lock has also been pointed up and coping repaired.

It has been found necessary to effect some repairs on all the locks to keep them in serviceable order. Lock No. 3 was pointed up prior to the opening of navigation, but it still leaks badly, apparently at the bottom, and the remedy would seem to be to pump it out, grout the bottom and lay a new floor.

Locks Nos. 6, 9 and 10 should be pointed and other repairs made before opening of navigation another year; Lock No. 11 requires thorough overhauling.

New balance beams have been placed in Locks Nos. 2, 4 and 6; several more new ones are also necessary, to be placed as follows: two in Lock No. 1, one in Lock No. 3, two in Lock No. 8, and two in Lock No. 9.

Bridges.

Nearly all the road bridges have required repairs in the way of new stringers, planking, etc.; these structures require no extraordinary expenditures next year.

Tow-path bridges.

Of the twenty six tow-path bridges nearly all have required more or less repairs during the season; two of them should be immediately and entirely rebuilt; one at Seneca Falls between Locks Nos. 3 and 4, the other the long bridge which spans the river below Lock No. 6; the present structures are very much decayed; ordinary repairs will render all the other tow-path bridges serviceable another year at least.

Docking.

The docking at Geneva has been patched, as it was last year, and it will probably last the season through; considerable repairs have been made on the docking at Waterloo and Seneca Falls. The work of rebuilding the piers which form the harbor at Cayuga, began two years ago and suspended, is to be resumed; a portion of the material therefor is already delivered and the balance contracted for.

The upper timbers of all docking on this canal, except such as has recently replaced old timber, are badly decayed, and it seems a waste of money to attempt to patch them ; new material seems to be absolutely necessary.

Dams.

On the 12th of April, last, following the spring freshet in Seneca river, a portion of the State dam at Waterloo on the north end was carried away ; by constructing a temporary wall of loose stone and earth the breach was stopped and flow of water checked for the season. By advice and consent of the assistant superintendent in charge of the Middle Division, a contract on most advantageous terms to the State has been made and entered upon for constructing a stone dam laid in cement, contiguous to the old wooden structure ; this work will be completed by November 1. All the other dams are in apparently good condition.

Feeders.

The old feeder flume at Montezuma is in very bad condition, and liable to give out at any moment. In my last annual report I advised the rebuilding of that structure, and now more urgently renew such recommendation.

Dredging.

With each recurring spring dredging out of deposits of gravel, etc., at the mouth of creeks flowing into the canal at Geneva, Waterloo, on Demont's level, and on the branch from Montezuma, is found necessary. The work performed this year will doubtless be required again before the opening next spring.

Tow-path.

The tow-path and berme bank is now, and has been throughout the season in good condition, so maintained by the ordinary force employed on the State scow.

Good navigation has been maintained on this canal throughout the year. During the month of August a drouth prevailed, attended by the lowering of Seneca lake (the only source of a supply of water for this entire section) nearly or quite two feet. While a few heavily-laden boats grounded on the rocky bottom between Waterloo and Seneca Falls, yet no serious detentions occurred.

D. W. COLVIN,

Superintendent.

WESTERN DIVISION.

REPORT OF ASSISTANT SUPERINTENDENT.

HON. JAMES SHANAHAN, *Sup't of Public Works, Albany, N. Y. :*

SIR — I have the honor to present herewith my annual report of the Western Division, Erie canal, for the fiscal year ending September 30, 1884:

On the first day of April, 1884, the undersigned filed his bond and entered on the discharge of his duties as Assistant Superintendent of Public Works, in charge of the Western Division of the Erie canal, the fiscal year commencing October 1, 1883, is therefore divided into two periods of management.

The division consists of four repair sections of the Erie canal, numbers VIII to XI, inclusive, divided as follows:

No. of section.	Commences.	Ends.	Distance in miles.
VIII ...	East line of Wayne county	East line of Monroe county	35.924
IX... ..	East line of Monroe county	End of construction section 284...	39.624
X	End of construction section 284 ..	Sulphur spring guard-lock	46.560
XI	Sulphur spring guard-lock.....	Buffalo, including Hamburg canal	26.815
Total.....			148.923
There are also five navigable slips in the city of Buffalo, aggregating in length...			1.600
And Genesee River feeder in the city of Buffalo			2.250
In all.....			152.773

The unnavigable feeders are:

	Miles.
Tonawanda and Oak Orchard creek	11.55
Genesee Valley canal, from Cuba reservoir to old Lock No. 87.....	7.65
Genesee Valley canal, from Scottsville to Rochester....	11.00
Total	30.20

The canal is fed as follows:

1. Lake Erie at Buffalo.
2. Tonawanda creek at Tonawanda.
3. Tonawanda and Oak Orchard creek at Medina.
4. Allen's creek, through the old Genesee Valley canal, at Rochester.
5. Genesee River feeder in the city of Rochester.

Lake Erie is, however, the main supply, the others being contributory in varying proportions.

The supply of water.

The levels on this division were with some care and exertion during the dry part of the season kept navigably full; the eel-grass,

the chief source of trouble in this respect, having been met with a vigorous treatment of scythe and drag from scow and steam tug.

During the period of greatest drought charges reached me that water was being stolen from the canal for the operation of mills and manufactories at certain points on the division. I took precautions against such depredations and tried to find the persons answerable for them, as I judged from many indications that the charges were not altogether groundless. Private interests and perverted local sentiments conspired to hide the perpetrators of this mischief from the penalty they deserved, and to make the duties of those in care of the canals both difficult and disagreeable. In illustration of this unjust local influence journals could be cited that, while editorially abusing the canal authorities for an alleged insufficiency of water in the canal, were berating the same authorities in their local columns for diverting water to the canal from local manufactories.

Navigation.

There was but one suspension of navigation on the division last year; this continued for about eight days and was caused as follows: On the 25th of June, 1884, a break occurred in the berme bank at the east end of Palmyra aqueduct, extending about eighty feet. At the time of the break the boat *Bertie* was passing through the aqueduct, and was caught with her stern on end of aqueduct and bow on bottom of canal, partially spanning the break. In this position she broke twice across; she was burned where she lay to expedite repair of break, which was then pushed to completion with all possible dispatch.

Navigation was resumed on July 2, 1884; cause of break was unknown.

Four boats sunk and two were burned during the year, through accident or carelessness of owners or operators; none of these caused any delay to navigation.

REPAIR SECTION No. 8.

Locks.

The locks on this section have been kept in good working order, but should receive the following repairs during the coming season, to-wit: Locks 54, 56 and 57, foundation replanked; No. 57, three new balance beams; No. 58, new swing-gates, tow-path locks and three new balance beams; Lock 61, four new balance beams beside general repairs and repointing of masonry.

Culverts.

The culverts on this section are in fair condition, excepting culvert No. 2, the wooden trunk of which is decayed; the necessary timber for repair of this culvert is on hand and the work will be done as soon as practicable.

Aqueducts.

The aqueducts at Lyons and Palmyra are in good condition; the advisability of building twist walls to the Palmyra aqueduct on the berme bank east and west will be determined by the engineers immediately after close of navigation.

Waste-weirs.

The waste-weir at Newark requires repairs in shape of rewooding which it will receive the coming spring.

Bridges.

Four new bridges on this section have been erected this year, Barker's farm bridge No. 7, bridge across old canal at Wayneport, iron bridge No. 27, and wooden bridge No. 12, besides waste-weir and lock bridges. Sweezy's bridge, No. 28, wooden, should be replaced by an iron structure.

State yard.

The State yard on this section is situated at Palmyra, and with it a carpenter shop and storage shed. The shed is small and should be enlarged.

Repair scows.

This section is provided with two repair boats, one in good condition, the other decayed and poor, the deficiency will be helped out the coming season by one of the new division repair scows now in use on section 9.

Prism of canal.

Considerable bottoming out should be done on this section before the opening of navigation in 1885.

Tow-path.

The tow-path on this section is in excellent condition, and easily kept so on account of gravel beds being near at hand.

Vertical walls.

The walls on this section need considerable replacing and repairing. The change of slope to vertical wall at the end of the tow-path immediately east of Lock No. 55 will be completed the coming winter.

REPAIR SECTION No. 9.

Aqueducts.

There is but one aqueduct on this section; the Rochester aqueduct over the Genesee river; this is in good condition.

Bridges.

The bridges on this section are in fair condition, having received such repairs as were absolutely necessary during the year. Baker's, No. 44, should be replaced by a new wooden structure, the present one having been condemned as unsafe, East Webster bridge, No. 100, is also unsafe and will be replaced the coming winter by a cast-iron bridge now in store at the State yard in Rochester.

Dams.

The dams in Genesee river at Rochester need and will receive re-sheeting and other repairs the coming year.

Excavation.

About 10,600 cubic yards of silt were taken out of the canal on this section during spring repairs, and a far greater amount of the same kind of work should be done next season.

Locks.

The locks of the section are in good condition ; they received all needed repairs during the season, and excepting some new balance beams but little work need be done for them the coming winter.

State yard.

The State yard of this section is located at Rochester. It is provided with stone sheds, blacksmith shops and carpenter shop. In view of the central location of this point on division and its other advantages, chief of which is a good available water power, I recommend that a division repair shop like that on the Eastern Division at Cohoes be established here, and furthermore, that measures for its establishment be taken at once.

A leak in the Genesee river feeder, through a broken culvert near Clarissa street bridge, Rochester, caused a loss of water that could ill be spared, and some expense for repairs this season. I renew former recommendations that an iron pipe be substituted for the worthless culvert at this point, at an estimated expense of \$350.

REPAIR SECTION No. 10.

Locks.

The combined locks on this section have received considerable attention during the year and are now in better condition than for years past. Five defective gates were replaced with new ones, the masonry was repointed, the iron work painted, new planks put in lock bottoms, and mitre-sills repaired. Sulphur Springs guard-lock was furnished with two new gates.

Prism of canal.

A considerable amount of labor was expended in bottoming out on this section last spring, but as in the case of all the other sections of the division a far greater amount of similar work remain to be done to perfect navigation.

Vertical and slope walls.

A great portion of the walls on this section are and have been bad, and any work to be done on them should in my opinion be in the shape of new walls rather than of repairs to old ones.

Banks and docking.

The banks have been strengthened in many places and are now in good condition, some work will be done on them the coming season between Lockport and Medina.

There is but one aqueduct on this section, it is situated at Medina over Oak Orchard creek; it needs and must receive numerous repairs the coming year.

Waste-weirs.

These structures with considerable attention have been kept in fair condition during the year, but a number of them need to be rebuilt next spring.

Stop-gates.

The gates at East and West Holly were repaired and are in good condition, though work to complete their improvement remains to be done the coming season.

Bridges.

The bridges on this section have been extensively repaired this year, but much remains to be done to make them what they should be; bridge No. 112, county line, has been replaced with a new iron one from Rochester State yard; Sulphur Springs wooden bridge has been entirely rebuilt; No. 119, Hulberton bridge, and Chapel street bridge have been extensively repaired.

State yard.

The State yard of this section is situated in Lockport; it includes shops and store sheds; this year it has been greatly improved, and is now in an orderly and proper condition.

Tow-path.

The tow-path shows evidence of due attention. The general condition of this section I consider good.

REPAIR SECTION No. 11.

Tow-path.

Constant attention during the year has been given to the tow-path on this section and its condition has been much improved, but it still needs extensive repairs between Tonawanda and Sulphur Springs guard-lock. The material for these repairs has all to be boated from Buffalo, therefore the improvement is slow and expensive.

Locks.

The locks of this section are in first-class condition, much necessary work having been done on all of them during last winter. The river lock at Tonawanda was dammed and pumped out and had bottom repaired, masonry repointed and four new gates and two new mitre-sills put in; gaines were cut in the masonry in order that a stop dam may be quickly and cheaply inserted for the future. The work was done by Section Superintendent Chambers before my accession to office and I regard it as a proper and wise precaution. The ship-lock at Black Rock has been furnished with three new balance beams; the guard-lock at Black Rock has been thoroughly repaired and furnished with three new gates.

Dredging.

A large amount of dredging has been done during the season with poor and inadequate facilities; a very comprehensive statement of the same may be found in the Superintendent's report for this section.

Bird island pier.

On this structure a large amount of work has been done the present year, by which it is greatly improved. During the last year the heavy gales and ice from the lake carried a large portion of it away. This has been replaced by new docking heavily loaded with stone and foreshored. The extensive repairs to this structure have been done in a thoroughly workmanlike manner, and the further repairs contemplated for the coming season of a similar kind will, I am satisfied, put this important structure in such a condition that it will cause little expense to the department for many years to come.

Bridges.

The bridges on this section have received constant attention throughout the year, and been kept in good condition. An old iron bridge, taken from Ischua creek feeder aqueduct, has been placed over the old canal at Pendleton on new stone piers. A new wrought-

iron bridge over the Hamburg canal at Louisiana street, Buffalo, should replace the old wooden structure now there, as owing to the proximity of warehouses and freight sheds the traffic over this bridge is heavy and constant. A new light iron draw should be placed over Scajaquada creek to take the place of the old and dilapidated wooden one now there. Ohio street swing bridge in Buffalo is in poor condition; its abutments especially are in need of repair, and should be attended to the coming spring. New home bridge No. 173 has been condemned and must be replaced at once with a new wooden bridge. The tow-path abutment of Pickard's bridge, No. 174, needs to be rebuilt after close of navigation.

Boats.

This section has been furnished with two new dump scows, but they are not of a proper build for use on the rough waters of Lake Erie. If these could be used elsewhere, I should recommend the building of two better adapted for use in this locality, under the supervision of the section superintendent. The tug, "*Queen City*," should be furnished with a new boiler at once, as that she now uses is bad and beyond repair. The repair steamer, "*Buffalo*," has been furnished with a new boiler this year and is in good condition and of great value to the department.

Docking.

The docking of this section, which heretofore has been in wretched condition, is now much improved by the addition of some 11,000 lineal feet of new timber, and more improvement of the same kind is needed the coming season.

The division.

The division, as a whole, is in a decidedly improved condition, and I am gratified to say this is the general verdict and comment of boatmen. I have this year introduced the use of four division repair scows which are under the direction and supervision of the Assistant Superintendent of Public Works. They have been at work on three of the sections of the division during a portion of the season, repairing tow-path, rip-rapping banks, etc., and have made a sensible improvement on the division. I am satisfied they will justify their establishment and prove continually useful. I recommend, however, that a larger one than those now in use be built under my direction for section 11, as I before remarked, the material for improvement on many parts of this section must be boated a long distance, and I am convinced that the building of a boat of extra carrying capacity for this service would be a measure of true economy.

A boat to carry the wrecking pump from point to point, as occasion demands, has been built and put in service this year. It is provided with an engine that may be connected with the boiler of the pump, and works a small propeller wheel for locomotion.

It has been put to use, and proved its value to the department a number of times this season.

RECOMMENDATIONS.

I would respectfully recommend that steps be taken to thoroughly dredge out the bottom of this division of the canal. After careful consideration and counsel with the engineers and section superintendents, I am enabled to give herewith an estimate of the amount of silt which should of necessity be taken out of the canal on this division the coming season.

On Section 11, including a channel much needed in Black Rock harbor, 210,000 cubic yards need to be removed over and above what the dredge will take out, at an estimated cost of \$22,000.

On Section 10, 130,000 yards should be removed; estimated cost, \$20,000.

On Section 9, 77,500 yards, at an estimated cost of \$18,750.

On Section 8, 73,000 cubic yards; estimated cost, \$18,000.

These estimates of cost are in accordance with those in section superintendents' reports.

I am satisfied that at least 350,000 cubic yards of silt should be removed from the bottom of the canal on this division, the cost of which, according to superintendent's estimates, is \$79,250. I am of the opinion that if the department should purchase two small dredges and work with them from both ends of the division, this work could be done for, at most, \$55,000. On the completion of the work, the dredges could, in my opinion, if it were thought advisable, be disposed of with little loss on their original cost to the State. I would, therefore, respectfully recommend that an appropriation of \$75,000 be, if possible, secured from the Legislature for this particular work.

Vertical walls.

In view of the present condition of the vertical walls on this division, particularly in the cities of Rochester and Buffalo, I think it would be a measure of economy to put in commission two boats provided with light derricks and accommodations for four men, including a mason, to travel over the division for repair of walls, bridges, abutments, etc.

In conclusion, I beg leave to refer you to the full and valuable reports and recommendations of the section superintendents of the division, to whom I am greatly indebted for energetic and hearty co-operation during my administration.

I append hereto a financial statement for the division.

Western Division summary.

Western Division office	\$1, 724 45
Western Division, Erie	3, 483 69
Section No. 8, Erie canal	6, 708 56

Section No. 9, Erie canal	\$9,964 42	
Section No. 10, Erie canal	7,805 87	
Section No. 11, Erie canal	26,450 56	
	<hr/>	\$56,137 55

Extraordinary repairs.

Break at Palmyra aqueduct, Section 8.....	3,765 54
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Total expenditure, Western Division, Erie canal.	<hr/> <hr/> \$59,903 09
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Total expenditure on Division, including expenditure of Section Superintendents for fiscal year.

By D. V. Teller, superintendent, Section 8.....	\$22,562 43
By John Gunsaul, superintendent, Section 9.....	28,014 95
By Horace H. Servoss, superintendent, Section 10...	26,545 11
By George Chambers, superintendent, Section 11...	45,970 29
Ossian Bedell, assistant superintendent, Western Division, Erie canal, to April 1, 1884.....	16,653 51
Ira Betts, assistant superintendent, Western Division, Erie canal, from April 1 to October 1, 1884	43,249 58

Grand total on division for fiscal year.....	<hr/> <hr/> \$182,995 87
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DETAILED STATEMENT of Expenditure on Western Division of Erie canal by Ossian Bedell, Assistant Superintendent of Public Works, from September 30, 1883, to April 1, 1884.

	Office.	Division.	Section 8.	Section 9.	Section 10.	Section 11.
Blacksmithing.....	.....	.....	\$76 46	.....	\$7 50	\$516 00
Boat repairs.....	.....	\$98 45	.....	.....	.....	151 57
Boat furnishing.....	.....	.....	34 34	\$105 03	.....	344 27
Bridge repairs ...	.....	282 40	.....	.....	1,164 41	84 11
Cement.....	.....	269 27	15 48	251 40	.....	158 41
Clerk salary	\$700 00	.....	.....	.....	.....	.....
Coal.....	.....	.....	63 52	.....	5 00	675 50
Damages.....	.....	15 50	.....	174 88	.....	.....
Diving.....	.....	.....	.....	.....	.....	52 00
Dredge.....	.....	.....	.....	.....	.....	14 87
Expense.....	207 25	94 70	115 30	95 06	49 99	175 07
Freight.....	.....	.....	.....	.....	7 40	.....
Gas.....	23 70	.....	.....	.....	150 00	.....
General repairs.....	.....	.....	.....	6 00	214 89	326 11
Hardware.....	.....	.....	121 83	185 45	148 89	779 91
Labor.....	.....	235 50	.....	77 45	16 50	47 98
Livery.....	.....	91 50	.....	1 50	7 00	6 00
Locks.....	.....	.....	.....	.....	.....	10 00
Lumber.....	.....	17 78	6 41	784 39	288 56	3,067 54
M. & M. bills.....	9 44	.....	168 59	463 10	1,113 42	716 57
Patrolman.....	.....	120 00	.....	.....	.....	.....
Printing.....	50	.....	49 55	7 25	79 05	.....
Postage.....	31 75	.....	.....	.....	.....	.....
Stationery.....	29 59	.....	.....	.....	6 05	.....
Steamer Buffalo ..	.....	.....	.....	.....	.....	186 82
Stone.....	.....	.....	7 50	.....	.....	228 50
Telegraph.....	48 21	10 35	26 68	5 68	49 88	36 90
Tug.....	.....	.....	.....	.....	.....	348 94
Towing.....	.....	.....	.....	.....	.....	123 00
Total.....	\$1,050 44	\$1,235 45	\$685 66	\$2,157 19	\$3,308 55	\$8,050 07
Grand total.....	.....	.....	.....	.....	.....	\$16,487 36

DETAILED STATEMENT of expenditures on Western Division of Erie canal, by Ira Betts, Assistant Superintendent of Public Works, from April 1, 1884, to September 30, 1884.

	Office.	Division.	Sec. 8.	Break, Sec. 8.	Sec. 9.	Sec. 10.	Sec. 11.
Blacksmithing			\$285 98	\$12 95	\$13 00	\$126 67	\$174 77
Boat repairs			44 07	.....	8 20	9 55	166 32
Boat furnishing		\$508 99	22 87	.....	64 35	17 50	206 21
Bridge repairs			196 50	.....	33 46	7 65	35 67
Cement			71 90	.....	241 50	124 94	.....
Clerk's salary.....	\$500 00		.....	.....	.....	.....	.....
Coal			5 25	.....	197 54	24 05	796 67
Division repair scows.			.....	.....	3,035 57	1,614 75	2,069 58
Expense	71 04	23 50	.....	136 35	11 10	.....	.....
Freight			20 50	.....	12 85	4 24	.....
Gas	6 00		.....	.....	118 60	.....	.....
Hardware.....			415 31	300 69	597 34	253 02	718 84
Labor		87 00	2,922 39	2,965 69	.....	.....	437 10
Livery... ..		16 00	19 12	46 50	9 00	35 50	.....
Locks			610 56	.....	103 83	.....	.....
Lumber			1,286 40	113 14	3,084 66	2,616 64	10,161 47
M. & M. bills		2 75	37 55	190 22	140 26	162 09	515 83
Patrolman.....		120 00	.....	.....	.....	.....	.....
Printing			29 16	.....	.....	.....	.....
Postage	14 50		.....	.....	.....	.....	.....
Stationary	35 75		1 10	.....	.....	.....	.....
Steamer "Buffalo" ..			.....	.....	.....	.....	1,172 61
Stone .....			.....	.....	.....	120 82	.....
Telegraphing	46 72	...	54 22	.....	7 37	37 12	74 44
Telephone .....			.....	.....	.....	.....	166 15
Tug .....			.....	.....	.....	232 00	185 06
Towing .....			.....	.....	.....	.....	583 00
Pump boat J. E. Ashe.		1,500 00	.....	.....	.....	.....	.....
	\$674 01	\$2,258 24	\$6,022 90	\$3,765 54	\$7,678 63	\$5,386 54	\$17,463 72
							\$43,249 58

Very respectfully,
 IRA BETTS,
*Assistant Superintendent of Public Works,
 Western Division State canals.*

SECTION No. 8, ERIE CANAL — D. V. TELLER, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of D. V. Teller, Superintendent of Repairs of thirty-nine miles of the Erie canal, extending from east line of Wayne county to east line of Monroe county, during the 366 days ending September 30, 1884.

Locks, whole number on section, 9.....	\$850 95
Lock-tending (exclusive of oil).....	7, 946 76
Lock-gates, whole number on section, 72.....	1, 231 87
Aqueducts, whole number on section, 2.....	33 10
Waste-weirs, whole number on section, 4.....	55 65
Culverts, whole number on section, 25.....	
Bridges of all kinds, whole number on section, 43...	1, 158 57
Cutting weeds.....	74 10
Opening State ditches.....	150 20
Lock-houses, whole number on section, 2.....	
Watch-houses, whole number on section, 9.....	
New vertical wall (at Lyons)	637 30
Raising and repairing tow-path and berme bank, not including repairs to slope walls	4, 185 05
Cleaning out bottom of canal during spring repairs..	2, 302 35
Cleaning on creeks (extra labor).....	103 50
Repairs of breaches	170 60
Breaking ice and assisting boats in consequence of ice.	80 93
Watching canal	1, 080 00
Other miscellaneous expenditures	989 55

Other work of consequence which does not come under any of the above heads, viz. :

Clerk hire.....	100 00
Extra labor (Lyons' gravel bed).....	211 95
Superintendent's salary.....	1, 200 00

Total	<u>\$22,562 43</u>
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Bridges on section.

There are 43 bridges on this section, of which 32 are highway bridges, exclusively ; 1 highway and change ; 2 change, exclusively, and 8 farm ; 9 of the highway bridges are constructed with side-walks ; 23 highway and 2 change are iron ; 1 highway and 1 farm have wrought-iron chords, needle-beams, with wooden truss, and 16 are constructed of wood.

New structures.

Wooden bridge No. 7; wooden bridge across old canal at Waynesport; wooden bridge No. 27, removed and iron one erected; wooden bridge No. 12; truss bridge on waste-weir No. 2; foot bridge on Locks 53 and 54; swing-gates, Locks 56 and 60; tumble-gate, Lock 60.

Cost of repairs and new structures.

There has been expended on locks \$589.60, as follows: New platform and pier repaired on Lock No. 59; new mitre-sills, Locks 56 and 59; removing bottom grouting and replanking Lock 58; replanked apron, Lock 58; cleaned out and repaired waste-weir to Lock 58; cleaned wells of Locks 57, 58 and 59; removed old bottom of tow-path lock, Lock 57, and part of heel-path lock, and replanked the same new; laid new apron below Lock 57; cleaned waste-weir, Lock 57; partially replanked Lock 56, and new mitre-sills, Locks 57 and 59; new foot bridges, Locks 53 and 54, and repairs to Locks 56, 57, 60 and 61.

There has been expended on lock-gates \$1,231.87, as follows: New running plank, Locks 56 and 60; new collar, Lock 60; collar repaired, Lock 61; new bumping-planks, Locks 60 and 61; framing new swing and tumble-gates for Locks 56 and 60; new swing-gates, Locks 56 and 60; new tumble-gate, Lock 60; removing old gates, Lock 60; drawing gates from State yard; removing old gates and inserting new; new wedge pieces and new timbers on top of tumble-gate, Lock 60; general repairs and recleating gates to Locks 53, 54, 55, 56, 57, 58, 59, 60 and 61; new paddles on gates in Locks 55, 56, 57, 58, 59, 60 and 61.

Expended on bridges \$1,158.57, as follows: New wooden bridge 7; new bridge across old canal at Waynesport; finishing new coping and repaired sidewalk, bridge 16; new joists, plank and railing on approach to bridge 40; painting new bridges 7 and 29; new joists, plank and coping bridge 34; repaired planking on bridges 4 and 5; repaired bridge 5; removed old bridge 27 and erected new iron one; framed new bridge 12, took down old bridge 12 and erected bridge 12, new.

Expended on waste-weirs \$55.65, as follows: Waste-weir 3, wood-work new and thoroughly pointed; 1 and 2 repaired and pointed.

Expended on aqueducts \$33.10, as follows: Wood-work on aqueduct No. 2 repaired.

Expended tending nine double locks, \$7,946.76.

Expended watching banks, etc., \$1,080.

Expended cutting noxious weeds, \$74.10.

Expended in cleaning out and opening State ditches, \$150.20.

Expended on tow-path, banks, etc., \$4,185.05, as follows: Raising and graveling tow-path and berme bank on the various levels, grading the approaches to bridges, laying new and repairing old docking, setting snubbing-posts, cleaning out ditches and culverts,

drawing gravel from State gravel bed to fill in wash-out caused by break in canal at aqueduct above Palmyra; drawing timber, stone, etc., from break to State yard; drawing bridges and assisting in tearing down old and erecting new ones; assisted in raising sunken boat; breaking ice from Lyons to Clyde; assisted in unloading stone from steam scow "*Buffalo*," cutting weeds, etc.

Expended on vertical wall \$637.30, as follows: Removing slope wall; excavating and preparing for foundation for new vertical wall; laying vertical wall; drawing stone and laying new docking over vertical wall.

Expended in cutting and breaking ice \$80.93, as follows: Cutting and removing ice from under aqueduct at Palmyra, and breaking ice from Lyons to east end of section for the safe passage of boats.

Expended for work done at Palmyra during break by section 8, carpenter crew, \$170.60.

Expended in miscellaneous repairs, etc., \$989.55, as follows: Watching three locks at Newark; adjusting waste-weirs, drawing levels, etc.; unloading timbers from cars and hauling them to State yard; drawing timbers from Palmyra to Lyons for docking over new vertical wall; repairing vertical wall below Lock 54; removing sunken boat below bridge 8, removing earth cast up on tow-path, repairing docking at Palmyra; removing stone from bottom of canal; digging out and filling in muskrat holes, etc.

Expended in bottoming out \$2,302.35, as follows: Clyde level, at Clyde, between bridges 4 and 5, below Lock 53; removed very heavy bar of quicksand from Lock 53; Lock Berlin level; bar above Lock 53, casting out from Lock 53 to bridge 6, Lyons level; from bridge 11 to Lock 54, tow-path side; from bridge 11 to bridge 12, the entire width of the canal; from bridge 12 to bridge 14, berme bank side; from bridge 14 to waste-weir No. 2, tow-path side; from waste-weir No. 2 to Scott's malt-house, tow-path side; from Scott's malt-house to bridge 17, with very heavy bar back of Graham house, the entire width of the canal on Poor-house level. Heavy bar above Lock 55, Newark level; bar below Lock 57; between Locks 57, 58 and 59, the entire width of the canal, from Lock 59 to railroad bridge; the entire width of the canal from railroad bridge to waste-weir No. 4, tow-path side, above Newark on the curve at Allerton's bridge.

Expended for services of clerk, \$100.

Expended in pointing locks, etc., \$261.35, as follows: Pointing and repairing masonry on Locks 53, 54, 55, 56, 57, 58 and 59.

Expended in extra labor \$211.95, as follows: Assisting in unloading scow, "*Clyde*," at Lyons gravel bed, unloading on tow-path, berme bank, etc.

Expended in extra labor at Palmyra \$103.50, as follows: Cleaning channel of Mud creek below aqueduct No. 2 at Palmyra; filled in during break.

RECOMMENDATIONS.

The following repairs and new structures should be completed before the opening of navigation in spring:

Locks.

No. 53, Clyde, new tumble-gate and masonry pointed, heel-path lock; No. 54, Lock Berlin, new tumble-gate, heel-path lock, new swing gate, tow-path lock, bottom replanked and grouted and new pier at head of lock; No. 55, Lyons, new swing-gates, tow-path lock; No. 56, poor-house, two new tumble-gates, bottom replanked and grouted; No. 57, Lower Lockville lock, new swing-gates, tow-path lock, three new balance beams; No. 58, Middle Lockville lock, new swing-gates, tow-path, three new balance beams; No. 59, Upper Lockville lock, one new balance beam, new running rods for three sets of gates; No. 60, Lower Macedon lock, masonry on upper end of lock should be taken up, relaid and pointed; No. 61, Upper Macedon lock, four new balance beams.

All the locks on this section need new paddles; thirty (30) new paddles should be purchased for use the coming season; the aprons of the locks need to be repaired and no doubt in some instances replanked; there will have to be general repairs to lock-gates, lock bottoms, lock walls, etc., that cannot be definitely ascertained till the close of navigation and the water is drawn off.

Bridges.

Wooden bridges 1, 2, 3, 6, 8, 11 and 18 repainted; masonry of abutments repaired generally on section; highway bridge 5, Clyde, new coping, sidewalk and sidewalks to approach of new; iron highway bridges 15 and 33, sidewalks and railing to approach of new; bridges 30 and 40, railing to approach of new; wooden bridge 28 should be a new structure.

Waste-weirs.

The wood-work on waste-weirs 1, 2, and 3 should be entirely new before the opening of navigation next spring.

Culverts.

Culvert No. 2 should be retimbered (material on hand).

Walls.

At Clyde, on berme bank, back of Lux's coal yard, 100 feet of vertical wall should be relaid with new docking; below Lock 54, 50 feet relaid with new docking; below Lock 55, Lyons, 200 feet, entirely new, continuation of new wall laid on curve last spring, with new docking; below Lock 56, 50 feet of slope wall should be removed and new vertical wall of quarry stone built; in front of spill-way on short level, between Locks 58 and 59, the wall should be repaired or spill-way filled up; below Lock 61, on berme bank, 150 feet of vertical wall should be removed and relaid with new quarry stone to make it sufficiently thick to stand; there are places on all the levels of the section where the slope walls need repairing and in a few places should be rebuilt.

Tow-path and berme bank.

One and one-half miles of tow-path, west from eastern line of section 8, should be raised six inches with gravel, and one-half mile of berme bank with earth and gravel, one foot; one mile west of pit lock, one-quarter mile of berme bank, raised one foot with earth and gravel; berme bank from change bridge 22 to Lock 57, raised one foot with earth; from bridge 26 to bridge 32, the tow-path bank should be strengthened by a rip-rap wall; also between change and highway bridge 35 to aqueduct No. 2 on berme bank.

Bottoming out.

Clyde, Lock Berlin and Twelve-mile levels need bottoming out at various points; above Lock 61, four miles, to west line of section 8, should be thoroughly bottomed out, in order to remove difficulty in keeping the proper depth of water at the lower end of Seventeen-mile level.

A breach occurred June 25th, last, on Twelve-mile level next to and east of aqueduct No. 2, at Palmyra, on berme bank, fifty feet on outside and seventy-five feet on inside of bank was washed away to a depth of sixteen feet; the bottom of canal was washed out to a depth of four feet, 300 feet east from aqueduct; boat loaded with wheat was held by draft of water lengthwise of the break; drawing water from level and unloading and removing boat consumed the 25th and 26th of June; four days from the 26th, the 30th of June, breach was repaired and levels were being filled; navigation was resumed July 3d, at 11:30 P. M.; the delay to navigation was nine days; the aggregate cost of repairing the above was \$3,765.54 exclusive of work done by scow crews in boating gravel to fill in wash-out, after navigation had been resumed; cause of break not definitely known. It is supposed that the break occurred by the work done by muskrats between wall of aqueduct and bank below canal bottom, as there was no visible sign to indicate a break before the bank gave away.

Fully six miles of canal has been bottomed out the past season; two miles of which the entire width of the canal has been cleaned.

Four boats have sunken the past year with no hindrance to navigation. Boat "*John H. Leight, Jr.*," loaded with lumber, sunk October 30, 1883, below Lock 60, stemmed the pier during a severe wind; raised and put on the dry dock at Newark in three days; boat "*S. R. Van Hausen*," loaded with corn, sunk November 17, 1883, below Clyde, caused by poor condition of boat, partially unloaded and raised in three days; boat "*Bertie*" sunk June 25, 1884, at Palmyra break, cargo of wheat removed and boat burned; steamer "*Advance*" took fire above Macedon, Lock 61, and burned to water's edge September 24, 1884; remains of boat removed by State employees.

Palmyra State yard and sheds are the only places on section 8, where any property of the State can be stored; it would be a great

saving of time and money if a store-house was erected at Lyons for safe-keeping of State property.

The depth of water maintained on the lower mitre-sills of each of the locks has been seven feet and six inches.

D. V. TELLER,
Superintendent.

SECTION No. 9, ERIE CANAL—JOHN S. GUNSAUL, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of John S. Gunsaul, Superintendent of Repairs of forty miles of the Erie canal, extending from east line of Monroe county to west end of construction section No. 284, during the 366 days ending September 30, 1884.

Locks, whole number on section, 5	\$1, 401 80
Lock-tending	5, 027 90
Aqueducts, whole number on section, 1	44 44
Waste-weirs, whole number on section, 8	146 78
Culverts, whole number on section, 1	404 84
Weigh-lock, whole number on section, 1	97 00
Bridges (iron), whole number on section, 45	1, 747 54
Bridges (wood), whole number on section, 29	149 30
State scows, whole number on section, 2	192 50
Ice breakers, whole number on section, 2	13 00
Cutting eel-grass	337 59
Slope wall	214 03
Vertical wall	848 35
Docking	420 63
Breaches	849 99
Breaking ice and assisting boats	292 06
Watching canal	2, 591 26
Repairing tools	252 70
Moving material	1, 599 86
Clerk hire	480 00
Work for other sections	495 78
Raising and repairing tow-path and berme bank	3, 155 39
Inspecting bridges	354 97
Bridge-tending	1, 083 81
Sheet piling	330 80
Feeder	257 25
Work for Western Division	56 00
Dams, whole number on section, 2	57 45
Cleaning out bottom of canal during spring repairs ..	3, 626 36
Other miscellaneous expenditures	857 35
Superintendent's salary	1, 200 00
Total	\$28, 566 73

The following are the principal repairs and improvements that have been made during the year.

Bridges.

No. 47, Fullam's basin, wood, roadway partially replanked ; No. 50, Bushnell's basin, iron, roadway sheeted ; No. 52, Guernsey's, wood, with iron lower chords, new corbels, new wall plates, four new braces, part new joist, roadway partially replanked ; No. 56, Cook's, wood, roadway sheeted ; No. 58, Billingham, iron, part new joist, roadway replanked ; No. 60, Drake's, wood, with iron lower chords, new needle beams ; No. 63, Monroe avenue, Rochester, iron, roadway replanked ; No. 72, Exchange street, swing, Rochester, iron, sidewalks replanked, new pinion wheel and shaft ; No. 73, Fitzhugh street, Rochester, iron, part new joist, roadway and sidewalks replanked ; No. 76, Washington street, Rochester, iron, new coping and joist, sidewalks replanked, south end of roadway raised and replanked ; No. 90, Spier's, wood, with iron lower chords, one new brace, two new sway braces, two new needle beams, part new joist ; No. 95, Cromwell's, wood, one new brace, part new sub-chord ; No. 96, Hiscock's, iron, abutments raised, new coping, repainted ; No. 100, East Webster, wood, new needle beams ; No. 103, Adams basin, iron, completely rebuilt, repainted and abutments raised ; No. 107, Mechanic street, Brockport, iron, repainted ; No. 108, Main street, Brockport, iron, sidewalks replanked, new roadway coping, railing repaired and repainted. Six iron bridges were fitted over in the State yard at Rochester for use on other sections.

Breaches.

A number of breaches have occurred but were discovered and promptly repaired before any serious damage resulted.

Culverts.

No. 38, Drake's, was uncovered, thoroughly concreted, and cut-off walls built.

Docking.

Three thousand five hundred lineal feet of docking were constructed or repaired.

Excavation.

During spring repairs there was removed from the bottom of the canal the following amount of sediment:

	Cubic yards.
From east end of section to Knapp's bridge.....	2,800
From Knapp's bridge to Baker's bridge.....	1,700
From Fairport to Brighton	600

	Cubic yards.
From Culver road bridge to Monroe street bridge.. . . .	3, 500
From Rochester to west end of section	2, 000
Total	10, 600

Fence.

It was considered necessary to inclose the stone yard at Jay street, Rochester, by a fence, in order to prevent the appropriation of the stone to private uses; the people appearing to regard them as common property; accordingly, a fence was constructed of matched boards five and one-half feet in height, 400 feet long, two sides.

Locks.

Eight new valves were inserted in the several locks, the slots at the head of the same were recut for the reception of dam timbers; the lining of Lock No. 65 was taken up and the foundation beneath thoroughly concreted and relaid; the masonry of all the locks were pointed up.

Sheet piling.

On the high embankment at Cartersville, 3,250 lineal feet of two-inch pine plank sheet piling were relaid; this was deemed necessary, as the old piling was very badly decayed.

State scows.

The State scows were repainted during the spring and put in good repair.

Sunken boats.

Two boats sunk, but did not interfere with navigation, as they were speedily raised.

Tow-path and berme bank.

There were 3,700 rods of tow-path and berme bank raised or gravelled; 100 snubbing posts were set at various points.

Walls, vertical and slope.

The number of lineal feet of wall relaid or repaired is as follows:

	Lineal feet.
Vertical wall relaid	1, 050
Vertical wall repaired	350
Slope wall repaired	1, 450
Total	2, 850

Water.

No difficulty has been experienced in regard to an insufficient water supply ; the average depth was maintained.

RECOMMENDATIONS.

Bridges.

No. 44, Baker's, wood, with iron lower chords, has been condemned by the engineers as unsafe for further use ; it is necessary that it be rebuilt at once ; No. 45, Parker's, wood, with iron lower chords, requires rebuilding the coming year ; it now rests upon a wooden trestle which has become decayed, rendering it an insufficient support. I renew my recommendation of last year that the trestle be replaced by stone abutments ; a sufficient quantity of stone and sand to complete them is now on the ground ; No. 51, Cartersville, wood, requires rebuilding the coming year ; No. 57, Weed's, wood, with iron lower chords, requires rewooding completely the coming year ; No. 91, Six-mile grocery, wood, requires rebuilding the coming year ; No. 100, East Webster, wood, is becoming unsafe and will be replaced by a cast-iron structure which is on hand in the State yard at Rochester. In addition to the above there are a number that require partial rewooding besides the general repairs.

Dams.

The Genesee river dam at Rochester requires sheeting and the building of three new piers.

Excavation.

Acting in accordance with the advice of the engineers, I recommend that the following amount of sediment be removed from the bottom of the canal next spring :

LOCATION.	Cubic yards.	Total.	Estimat'd expense.
From Brockport to Spencerport	50,000		
From Spencerport to Scott's bridge.....	21,000		
From Spencerport to Scott's bridge, removing rock.	1,000	72,000	\$18,750 00
From west end of high embankment at Cartersville to King's bend	5,000		
Improvement of bend at Cartersville near N. Y. C. & H. R. R. R. Co.'s bridge.....	500	5,500	
		77,500	

Locks.

The locks will require the insertion of several new balance beams and valves next spring, in addition to the following: No. 64 will

require one new tumble-gate; No. 65 will require a new lining and a new lower gate; three lock bridges are required.

Sheet piling.

There should be 500 lineal feet of sheet piling relaid on the high embankment at Cartersville, in order to complete that work properly.

Stop-gates.

The Adams basin stop-gate requires a new heel-post, and the cribs repaired.

Waste-weir.

The Brockport waste-weir requires a new apron, the bulk-head repaired and the bridge replanked; the waste-weir on the Three-mile level requires rewooding entirely.

Walls — Vertical and slope.

There is 600 lineal feet of vertical wall through the city of Rochester that requires to be taken down and rebuilt next spring; at numerous other points the vertical and slope wall requires rebuilding or repairing.

The abutments of the New York Central and Hudson River Railroad Company's bridge over the canal at Cartersville require attention. I regard them as unsafe, and the proposed excavation at that point will render them still more so, as it will be necessary to encroach upon their foundations. I recommend that they be obliged to rebuild them or otherwise secure them.

JOHN S. GUNSAUL,
Superintendent.

SECTION No. 10, ERIE CANAL — HORACE H. SERVROSS, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of Horace H. Servross, Superintendent of Repairs of forty-eight miles of the Erie canal, extending from west end of construction section No. 284, at Brockport, N. Y., to and including guard-lock, west of Lockport, during the 366 days ending September 30, 1884.

STRUCTURES OR WORKS, ETC.	Whole No. on section.	Cost of new structures.	Cost of rep'rs of old, etc.	Total new and old.
Locks (Combined).....	5	.....	.....	\$1,606 30
Lock-tending (exclusive of oil) .....	.....	.....	.....	5,996 43
Boom logs.....	.....	.....	.....	132 25
Lock-gates .....	.....	\$635 00	.....	635 00
Aqueducts.....	1	.....	.....	56 00
Waste-weirs.	10	.....	.....	504 67
Culverts.....	66	.....	.....
Guard-locks.....	1	.....	.....	189 43
Stop-gates.....	3	.....	.....	537 02
Swing bridges (iron).....	1	.....	\$96 05	} 2,305 25
Road bridges (wood).....	26	221 85	333 87	
Road bridges (iron).....	42	212 84	496 85	
State scows.....	2	.....	.....	83 50
Small boats	1	.....	.....
Ice breakers	2	.....	.....	58 57
Tending swing bridge.....	.....	.....	.....	547 10
Lock-houses and office.....	1	.....	.....
Work-shops and tool-houses..	3	.....	.....	89 75
Watch-houses.....	5	.....	.....
Store-houses	1	.....	.....
Timber sheds	2	.....	.....
Gauging and regulating water. ....	.....	.....	.....	350 00
Raising and repairing tow- path and berme bank, not in- clud'g repairs to slope walls. ....	.....	.....	.....	607 32
Cleaning out bottom of canal during spring repairs.....	.....	.....	.....	2,193 65
Cleaning out hole foot of locks .....	.....	.....	.....	483 80
Dams	1	.....	.....
Slope wall.....	.....	.....	.....	2,167 45
Docking.....	.....	1,198 90	427 08	1,625 98
Watching canal.....	.....	.....	.....	2,166 50
Other miscellaneous expendi- tures.....	.....	.....	.....	3,009 14
Superintendent's salary.. ..	.....	.....	.....	1,200 00
Total .....	.....	.....	.....	\$26,545 11

Locks.

After the close of navigation last season, a small force of men were retained and employed during the winter. Five new gates were built for the combined locks, and during repairs in the spring of the current year five new ones were put in the locks, viz.: One foot-gate in tow-path lock No. 67; two foot-gates in berme lock No. 68, and two foot-gates in berme lock No. 71. These together with the others, which were still in good order, put the lock in first-class condition as far as gates were concerned. In the spring the locks were thoroughly pointed with Portland cement. Two new culverts were put in and all the others, together with the slides, nigger-heads, rods and chains, were repaired. Many new plank were put in the lock bottoms. The mitre-sills were repaired, new slide levers were put on; the pier at the head of the lock was replanked; all the iron work on the locks was painted; two coping stones on the south side of berme bank No. 71 were badly chipped and fast decaying and were replaced by new ones. Two new unfinished gates for Sulphur Springs guard-lock were finished and put in. Upon drawing the water from the canal last spring the frost in the banks caused heavy stone and wall slides, more especially in the deep cut west of Lockport, and a large amount of labor was performed in removing them preparatory for opening of navigation. Considerable bottoming out was also done at various points over the section.

Walls.

During the season of 1883, heavy slides occurred at Albion, Gaines Basin, Medina, Gasport and Lockport, and these walls had to be rebuilt and in many cases of new stone, as the material originally used was poor and too light.

Hole at foot of locks.

Considerable trouble was experienced by boatmen during the season of 1883 by their lines catching at the foot of the combined locks. In the spring the steam pump belonging to the Western Division was brought to Lockport and the hole at the foot of the locks was pumped out and a large amount of earth and refuse was removed. The walls were discovered to be badly undermined and new walls were built under the original walls which considerably strengthened them, and it is safe to say no trouble can arise from them. A coping stone which was pulled into the canal a number of years ago was found and replaced.

Banks.

The banks have been greatly strengthened by a new gravel scow placed on the section by Assistant Superintendent Betts, which has gravelled the towing-path, rip-rapped the berme bank until they are in first-class form between Lockport and Medina, although they still need some strengthening. I would suggest that the banks between

Lockport and Middleport be raised a foot or so to give the canal a better capacity for holding water.

Docking.

At the time of my taking charge of this section the docking was in wretched condition. Considerable was put in last year, but mostly on the lower level. During the present season a large amount of new docking has been put in between the combined locks and Sulphur Springs guard-lock which puts this part of the section in a pretty good condition. A good deal of new docking has also been put in below Medina, but more is needed before the docking can properly be said to be in first-class shape.

Aqueduct.

The Medina aqueduct will need extensive repairs next spring, as it leaks badly.

Waste-weirs.

Watson's and Mabee's waste-weirs were both rebuilt last spring, and the waste-weirs at Lockport, Middleport, Medina, Albion, Brockville and Holley were more or less repaired. The latter-named waste-weirs, with the exception of that at Holley, should be rebuilt next spring.

Stop-gates.

The stop-gates at East Holley, West Holley and Road Culvert were rebuilt during the month of April last, and are now in good working condition. The piers have been repaired.

Bridges.

During the months of November and December the county line bridge No. 112, was taken down and a new iron one from Rochester State yard put up in its place. The Sulphur Springs bridge was also rebuilt of wood. Hulberton bridge No. 119 and Chapel street bridge No. 158 were almost entirely rebuilt. Bridges Nos. 125, 127, 128, 152 and 159 were replanked and new joists put in. Nos. 167, 164, 163, 162, 160, 157, 155, 149, 142 and 133 were considerably repaired, and all the other bridges on the section received necessary repairs. I respectfully renew my recommendation in my last year's report that Main street bridge No. 163 in the city of Lockport be replaced by a new iron structure. This bridge was erected in 1858, and the under timbers and joists are badly decayed, so much so that a new bridge should take its place as soon as possible. The bridges at Gasport, Reynolds' Basin and Shelby's Basin should be rebuilt, and I would recommend iron in place of the present wooden structures. One of the ice breakers belonging to this section has been utilized as a paint boat and began at the west end of the section and worked eastward. Twenty-one of the bridges are already painted and the remainder of those on the section will be painted before the season is over.

Boom logs.

There are about 4,000 feet of floating boom logs at the head of the combined lock, on both sides of the canal, which require a great deal of labor to keep in repair.

State yard, etc.

The State buildings in the State yard at Lockport have undergone various changes; the east building has been changed into a carpenter shop and paint shop and store-house for lock-gates; the west building was changed into a store-house for tools and materials, and the State dock in the yard was raised two feet around the carpenter shop and filled in with earth and stone and graded with gravel; the State yard and buildings are now in good condition.

The sewer on berme bank near Culvert No. 120 was uncovered, planked and recovered which put it in good shape; before this it caused slight trouble.

There have been no detentions to navigation during the season; a little trouble was experienced from low water about the first of August, but the eel-grass was immediately dragged out and the water flowed much easier, since which time no complaints have been made.

A depth of eight feet of water has been maintained on the lower mitre-sills of the combined locks.

In closing, I cheerfully bear testimony to the uniform vigilance and strict attendance to their respective duties of the employees upon this section.

HORACE H. SERVOSS,
Superintendent.

SECTION No. 11, ERIE CANAL — GEORGE CHAMBERS, *Sup't.*

ANNUAL REPORT showing the name and number of structures or works, the different heads of expenditure, and the total cost of each, on the line of the canal under the charge of George Chambers, Superintendent of Repairs of twenty-eight miles of the Erie canal, extending from Sulphur Springs guard-lock to Buffalo, during the 366 days ending September 30, 1884.

Locks, whole number on section, 3	\$3,280 73
Lock-tending (exclusive of oil)	2,565 56
Farm bridges (wood), whole number on section, 52..	9,859 99
Farm bridges (iron), whole number on section, 3	
Road bridges (wood), whole number on section, 2....	
Road bridges (iron), whole number on section, 27....	
Tow-path bridges (wood), whole number on section, 1,	
Tow-path bridges (iron), whole number on section, 5. }	
State scows, harbor-master	513 88

Work-shops, harbor scavenger.....	\$205 55
Timber sheds, transportation	1,830 86
Piling machines, pile driving and repairing docking on Tonawanda creek	2,071 70
Raising and repairing tow-path and berme bank, not including repairs to slope walls	11,826 05
Cleaning out bottom of canal during spring repairs..	2,882 91
Bird Island pier and harbor wall.....	6,899 37
Towing boats, scows, etc.....	1,665 00
Watching canal and State property.....	1,165 69
Superintendent's salary.....	1,200 00
Total	<hr/> \$45,970 29 <hr/> <hr/>

A good depth of water has been maintained on this section the entire year.

Navigation has not been interrupted for one moment on this section from any cause whatever during this season.

Tow-path.

The tow-path is in very good condition, having received considerable needed attention this year. I have thoroughly cindered about eight miles of it between Buffalo and Tonawanda, having about twelve miles to do. I have restored the paved protection to tow-path between the canal and Niagara river for a distance of about two miles between Black Rock Lock and Bedell Ferry, a much needed repair as a protection of the tow-path from encroachment of the Niagara river. The tow-path on Tonawanda creek has been raised in various places and considerable work done in removing old and dilapidated docking and replacing the same with a stone paved protection which I consider will be much more durable. With the assistance of the repair boat *Tonawanda Chief* under the charge of Assistant Superintendent Betts. I have been able to raise and place a stone paved protection on about three miles of tow-path on this part of the section. The material, consisting of stone chips and clay, was boated from nine to twelve miles for this work.

Berme bank.

The only repairs to berme bank I have made has been done between Erie and Genesee streets, Buffalo, where the bank was falling away. It has been raised and docked for a distance of 870 feet.

Locks.

Last winter I gave my undivided attention to restoring the locks on this section to a proper condition.

At the ship-lock, Black Rock, I placed three new balance beams; at the guard-lock, Black Rock, I put in three new gates and generally repaired the same.

The river-lock, at Tonawanda, was dammed, pumped out and cleaned, four new gates and two new mitre-sills put in. I took advantage while this lock was dammed and pumped to cut gains in the masonry work for a stop-dam to avoid the expensive necessity of putting in a coffer-dam at this lock for future repairs.

I also repointed the masonry and put every thing about this lock in first class condition.

Dredging.

Although working with inadequate facilities, for the amount of dredging that ought to be done in the slips, basins, harbor and canal on this section, I have, I believe, accomplished considerable good work and kept the dredge constantly employed.

Pile driving.

I have used the pile driver at different places this year, a number of piles being driven on Tonawanda creek, repairing and recapping about one-quarter of a mile of docking. A number were driven at the spillway at Tonawanda to replace old and rotten ones. I also drove a number of piles and capped the same at the river end of Tonawanda lock, protecting and improving the approach thereto. I did the same on both sides of the lock slip leading to the canal at the other end of this lock, extending to the canal, thus putting the approaches to this lock at both sides in the best of condition.

Bird island pier.

This important structure was badly damaged by the heavy storms of last winter, a piece some 500 feet long being entirely carried away. I have replaced this damaged part with cribbing and docking heavily loaded with stone. I have foreshored this part of the pier with heavy stone, and believe this now will successfully resist the storms of the lake.

Bridges.

All of the bridges on this section received proper attention and repairs during the year; the great increase of traffic over the bridges situated in the city of Buffalo, caused by its recent rapid growth, necessitated watchful attention and increased repairs and renewal of road-ways.

The following bridges have been entirely replanked during the year: Porter avenue, Erie street, Main street, Washington street, Michigan street, Louisiana street, Ohio street, over Clark and Skinner canal; these and the others in said city are constantly receiving repairs and renewal of plank.

Three new bed-plates have been put under the Ohio street swing bridge, and the bridge put in as good condition as possible under the circumstances.

I have had in the State yard at Buffalo a single span cast-iron bridge from Ischua creek feeder aqueduct for some time; I have built stone piers and placed this bridge over the old canal at Pendleton as recommended in my report of last year.

Docking.

The docking on this section has been bad; I have put in this year 11,041 lineal feet of 10 by 12 docking, oak, which has made a decided improvement. I have also repaired the vertical wall between Buffalo and Black Rock lock, and it is now in a much improved condition.

Steamer Buffalo.

This boat, as recommended in my report of last year, has been repaired and furnished with a new boiler, and has been in use constantly during the year to good advantage to the department.

RECOMMENDATIONS.

Bridges.

A new double-span, double-passenger way iron bridge should be placed over the Hamburg canal at Louisiana street, Buffalo.

The amount of traffic over this bridge is probably of a heavier variety than over any other bridge on this section, and is constantly increasing, and is now confined to a single span wooden bridge.

Ohio street swing bridge should be re-set on new abutments after the close of navigation.

At Scajaquada creek there should be placed a new light iron draw bridge; the one there now is an old wooden heavy one and almost worn out.

Hamilton street bridge is low and should be raised; boats loaded with hay or other light bulky loads often striking the rods.

New Home bridge No. 173 is in bad condition, and I have condemned and closed it; I would recommend the erection of a new two-span wooden bridge at once, as I consider it would be a wasteful expenditure of money to attempt to further repair the one now there.

Pickard's bridge No. 174; the tow-path abutment of this bridge is in bad condition, and should be rebuilt after the close of navigation.

Dredging.

It would be of advantage to the canal if this section could be furnished with increased facilities for dredging, as there is more to do than can be done with the dredge now in use. Black Rock harbor needs dredging to the extent of 50,000 yards to place it in the condition it should be. The canal between Erie street, Buffalo

and Black Rock needs considerable dredging ; this beyond doubt is mainly caused by the drainage of the Buffalo sewers into this part of the canal. The coming season the said city will have in operation a new system of sewers which tunnel under the canal and empties into the Niagara river ; after this is accomplished this part of the canal once dredged would remain in good condition with a sufficient depth of water without further labor or expense. The two new dump scows furnished this section the last year are not proper scows for the business at this point. They would probably be of service to the department at some point where they would not encounter heavy weather and rough water. I would recommend the building of two new ones for use of this section ; they could be built here at the State yard the coming winter with economy and dispatch under the immediate supervision of the superintendent.

Tow-path.

There are parts of the tow-path on Tonawanda creek that need raising and cindering, which should be done the coming season. The tow-path between Porter avenue and Georgia street is and has been threatened with encroachment by the waters of Lake Erie. The State at this point owns but fifteen feet in width covered by the tow-path ; a piece eighteen feet in width and about 900 feet in length should be bought to protect this part of the path from the waters of the lake, which now in heavy weather sweep clear over into the canal.

Locks.

Four new lock-gates should be built at once for the guard-lock at Black Rock, as the ones now there will soon have to be replaced.

Bird island pier.

This structure is in constant need of attention, caused by the gales and heavy pressure of ice in fall and spring of the year from Lake Erie, which has a broad, full sweep at its face. I am of the opinion that it would be a measure of economy to foreshore the entire face of this structure with large heavy stone.

Hamburg canal.

The city of Buffalo, with permission of the Superintendent of Public Works, was allowed to construct a long dam in the Hamburg canal, extending from the head of the said canal to about 200 feet west of Chicago street, in the interest of an experiment to purify the waters of said canal. This they should be obliged to remove next summer as soon as their new system of sewers is put in operation.

Tug "Queen City."

This boat should be furnished this winter with a new boiler. The one now in her being old and worn out.

GEORGE CHAMBERS,

Superintendent.

TABLES

ACCOMPANYING THE ANNUAL REPORT OF THE SUPER-
INTENDENT OF PUBLIC WORKS.

TABLE

Exhibiting the date of the opening and closing of the Hudson river, and the number of days open; also, the time of commencement and close of each navigable season of canals, and the number of days of navigation since 1824; also, the date of the opening of Lake Erie since 1827.

OPENING AND CLOSING OF THE HUDSON RIVER.				COMMENCEMENT AND CLOSE OF NAVIGATION OF ERIE CANAL.			
River open.		River closed.	Days open.	Canal open.	Canal closed.	Navigable days.	Opening of the lake.
March 3, 1824	.....	January 5, 1824	309	April 30, 1824	December 4	219	.....
March 6, 1825	.....	December 13, 1825	283	April 12, 1825	December 5	238	.....
February 25, 1826	.....	December 13, 1826	302	April 20, 1826	December 18	243	.....
March 20, 1827	.....	November 25, 1827	251	April 22, 1827	December 18	241	.....
February 8, 1828	.....	December 23, 1828	220	March 27, 1828	December 20	269	April 21, 1827
April 1, 1829	.....	January 14, 1829	286	May 2, 1829	December 17	230	April 1, 1828
March 15, 1830	.....	December 25, 1830	283	April 20, 1830	December 17	242	May 10, 1829
March 15, 1831	.....	December 6, 1831	262	April 16, 1831	December 1	230	May 5, 1830
March 25, 1832	.....	December 21, 1832	289	April 19, 1832	December 21	241	May 8, 1831
March 21, 1833	.....	December 13, 1833	277	April 15, 1833	December 12	238	April 27, 1832
February 29, 1834	.....	December 15, 1834	291	April 17, 1834	December 12	240	April 23, 1833
March 25, 1835	.....	November 50, 1835	268	April 15, 1835	November 30	230	April 6, 1834
April 4, 1836	.....	December 7, 1836	244	April 25, 1836	November 26	216	May 8, 1835
March 27, 1837	.....	December 14, 1837	261	April 20, 1837	December 9	234	April 27, 1836
March 19, 1838	.....	November 25, 1838	257	April 12, 1838	November 16	228	May 16, 1837
March 25, 1839	.....	November 18, 1839	286	April 20, 1839	December 25	241	March 31, 1838
February 25, 1840	.....	November 5, 1840	285	April 20, 1840	December 9	228	April 11, 1839
March 24, 1841	.....	November 19, 1841	286	April 24, 1841	November 30	221	April 27, 1840
February 4, 1842	.....	November 28, 1842	308	April 20, 1842	November 28	222	April 14, 1841
April 13, 1843	.....	December 10, 1843	242	May 1, 1843	November 30	214	March 7, 1842
March 18, 1844	.....	December 17, 1844	278	April 18, 1844	November 30	222	May 6, 1843
February 24, 1845	.....	December 3, 1845	283	April 15, 1845	November 29	228	March 14, 1844
March 18, 1846	.....	December 14, 1846	275	April 16, 1846	November 25	234	March 14, 1844
April 7, 1847	.....	December 25, 1847	263	May 1, 1847	November 30	214	April 3, 1845
March 22, 1848	.....	December 27, 1848	292	May 1, 1848	December 9	223	April 11, 1846
March 19, 1849	.....	December 26, 1849	286	May 1, 1849	December 5	219	April 23, 1847
March 10, 1850	.....	December 17, 1850	282	May 22, 1850	December 11	234	April 9, 1848
February 25, 1851	.....	December 14, 1851	293	April 15, 1851	December 5	235	March 25, 1849
March 38, 1852	.....	December 23, 1852	270	April 20, 1852	December 16	239	March 25, 1850
March 23, 1853	.....	December 21, 1853	274	April 20, 1853	December 20	245	April 2, 1851
March 17, 1854	.....	December 8, 1854	266	May 1, 1854	December 3	217	April 20, 1852
March 27, 1855	.....	December 20, 1855	268	May 1, 1855	December 10	224	April 14, 1853
April 11, 1856	.....	December 14, 1856	248	May 5, 1856	December 4	214	April 29, 1854
							April 21, 1855
							May 2, 1856

TABLE -- (Continued).

OPENING AND CLOSING OF THE HUDSON RIVER.			COMMENCEMENT AND CLOSE OF NAVIGATION OF ERIE CANAL.			Opening of the lake.
River open.	River closed.	Days open.	Canal open.	Canal closed.	Navigable days.	
February 27, 1857	December 27, 1857	303	May 6, 1857	December 15	223	April 27, 1857
March 20, 1858	December 17, 1858	273	April 28, 1858	December 8	225	April 15, 1858
March 13, 1859	December 10, 1859	273	April 15, 1859	December 12	242	April 7, 1859
March 6, 1860	December 14, 1860	283	April 25, 1860	December 12	232	April 17, 1860
March 5, 1861	December 23, 1861	294	May 1, 1861	December 10	224	April 13, 1861
April 4, 1862	December 19, 1862	259	May 1, 1862	December 10	224	April 15, 1862
April 3, 1863	December 11, 1863	252	May 1, 1863	December 9	223	April 3, 1863
April 11, 1864	December 12, 1864	277	April 30, 1864	December 8	223	April 13, 1864
March 22, 1865	December 16, 1865	270	May 1, 1865	December 12	226	April 26, 1865
March 20, 1866	December 15, 1866	270	May 1, 1866	December 12	226	April 28, 1866
March 26, 1867	December 8, 1867	257	May 6, 1867	December 20	229	April 21, 1867
March 24, 1868	December 5, 1868	252	May 4, 1868	December 7	217	April 19, 1868
April 5, 1869	December 9, 1869	248	May 6, 1869	December 10	218	May 1, 1869
April 31, 1870	December 17, 1870	261	May 10, 1870	December 8	213	April 16, 1870
March 12, 1871	November 29, 1871	263	April 24, 1871	December 1	220	April 1, 1871
April 7, 1872	December 9, 1872	247	May 13, 1872	December 1	202	May 6, 1872
April 16, 1873	November 22, 1873	221	May 15, 1873	December 5	205	April 29, 1873
March 19, 1874	December 12, 1874	269	May 5, 1874	December 5	215	April 18, 1874
April 13, 1875	November 29, 1875	229	May 18, 1875	November 30 (by ice)	197	May 12, 1875
April 1, 1876	December 2, 1876	245	May 4, 1876	December 1	211	May 4, 1876
March 30, 1877	December 31, 1877	277	May 8, 1877	December 7	214	April 17, 1877
March 14, 1878	December 20, 1878	282	April 15, 1878	December 7	237	March 24, 1878
April 4, 1879	December 20, 1879	261	May 8, 1879	December 6	212	April 24, 1879
March 5, 1880	November 25, 1880	266	April 20, 1880	November 21 (by ice)	216	March 19, 1880
March 21, 1881	January 2, 1882	288	May 17, 1881	December 8	206	May 1, 1881
March 8, 1882	December 5, 1882	273	April 11, 1882	December 7	241	March 26, 1882
March 29, 1883	December 15, 1883	261	May 7, 1883	December 1	208	May 4, 1883
March 25, 1884	December 19, 1884	269	May 6, 1884	December 1	209	April 25, 1884

STATEMENT of the number of locks, their lift in feet, total lockage of each canal, etc., etc., of all the canals in the State of New York.

NAME OF CANAL.	Length in miles.	Lockage in feet.
Erie canal	351.78	654.80
Navigable feeders of same.....	3.35	.....
Champlain canal	66.00	179.50
Pond above Troy dam.....	3.00	.....
Glens Falls feeder and pond.....	12.00	132.00
Black river canal	35.33	1,082.25
Black river feeder ..	13.47	.....
Black river improvement ..	42.50	.....
Oneida Lake canal.....	6.00	62.00
Oswego canal	38.00	154.85
Oneida river improvement.....	20.00	7.85
Seneca river towing-path	5.00	.....
Baldwinsville canal.....	1.00	8.00
Cayuga and Seneca canal ..	22.77	76.61
Cayuga inlet	2.00	.....
Total	622.20	2,357.86

NAME OF CANAL.	Length in miles.	SIZE OF CANAL.			NUMBER AND SIZE OF LOCKS.			Average burden of boats.	Maximum burden of boats.
		Width on surface.	Width on bottom.	Depth of water.	Number of locks.	Length between quoins.	Width in clear.		
Erie canal	363	40	23	4	83	90	15	70	76
Enlargement of same	351¼	70	56	7	72	110	18	210	240
Oswego canal	38	40	24	4	18	90	15	70	76
Enlargement of same.....	38	70	56	7	18	110	18	210	240
Cayuga and Seneca canal.....	21	40	24	4	10	90	16	70	76
Enlargement of same	23	70	56	7	11	110	18	210	240
Champlain canal.....	66	50	35	5	20	110	18	85	120
Glens Falls feeder.....	12	50	35	5	12	100	18	80	85
Pond above Troy dam	3	..	..	..	1	..	..	..	..
Black river canal and feeder	50	42	26	4	109	90	15	70	76
Black river improvement.	42	..	..	..	1	110	18	70	76
Oneida river improvement ..	20	80	60	4½	2	120	30	70	76
Oneida Lake canal ..	7	70	56	7	7	110	18	220	220
Baldwinsville and Seneca tow-path	5¼	40	24	4	1	90	15	70	76

ERIE CANAL.

Total cost of construction, \$51,609,200.

REMARKS.	Old canal (not now in exist'ce)	Enlargement.
Construction authorized.....	April 15, 1817.....	May 11, 1835.
Construction commenced	July 4, 1817.....	August, 1836.
Construction completed.....	October 26, 1836.....	September, 1862.
Estimated cost of engin'r prices	\$4,926,738	\$23,402,863.
Actual cost of construction ...	\$7,145,789	\$44,465, 414.
Total feet of lockage.....	675½ feet	654 80-100 feet.
Length from Albany to Buffalo	363 miles.....	350½ miles.
No. locks and size of chambers	83 locks, 90x115.....	72 locks, 110x18.
Size of prism	40 and 28x4.....	70 and 56x7.
Maximum dimension of boats.	78 62-100x14 46-100x3½, draft 1,	98x17 5-11x6 5-12 draft.
Burden of boats	75 tons	220 tons.

LOCKS.

No. of Lock.	Double or single.	Lift.	No. of Lock.	Double or single.	Lift.	No of lock.	Double or single.	Lift.
1	Double.....	15¼	25	Double.....	8	49	Double.....	6
2	"	9½	26	"	8	50	"	6 11-12
3	"	11¼	27	"	8	51	"	5½
4	"	11¼	28	"	8	52	"	11
5	"	10	29	"	7	53	"	6
6	"	10	30	"	10½	54	"	7½
7	"	10	31	"	6	55	"	6
8	"	10	32	"	8	56	"	10
9	"	10	33	"	6	57	"	8
10	"	10	34	"	8	58	"	8
11	"	10	35	"	8	59	"	8
12	"	10	36	"	10	60	"	10
13	"	10	37	"	10	61	"	9
14	"	10	38	"	9½	62	"	9
15	"	10	39	"	10½	63	"	9
16	"	10	40	"	8	64	"	10
17	"	10	41	"	8	65	"	10
18	"	10½	42	"	8	66	"	9
19	"	8½	43	"	8	67	} Combined.	55 10-12
20	"	10	44	"	10½	68		
21	"	11½	45	"	10½	69		
22	"	11½	46	"	3	70		
23	"	8	47	"	10½	71	2 Gd. Blk. Rk. & Buf.	2
24	"	8	48	"	10½			

LOCATION OF LOCKS.

COUNTIES.	Nos. of locks.	COUNTIES.	Nos. of locks.
Albany.....	1 to 18, inclusive.	Onondaga ...	47 to 51, inclusive.
Saratoga	19 and 20.	Cayuga	52.
Schenectady.....	21 to 25, inclusive.	Wayne	53 to 60, inclusive.
Montgomery ..	26 to 34, inclusive.	Ontario ..	
Herkimer.....	35 to 45, inclusive.	Monroe ..	61 to 66, inclusive.
Oneida	46.	Orleans	
Madison ..		Niagara.....	67 to 71, inclusive.

CHAMPLAIN CANAL AND GLENS FALLS FEEDER.

Construction authorized	April 15, 1817.
Glens Falls feeder authorized	April, 1822.
Estimated cost of canal at engineers' prices	\$871,000.
Navigation opened from Fort Edward to Lake Champlain	November 24, 1819.
Canal completed from Waterford to Lake Champlain.....	1822.
Canal, cost of construction up to 1827	\$921,011.
Feeder, cost of construction up to 1837	\$91,944.
Total cost of both included improvements, exclusive of ordinary repairs, June, 1868	\$2,378,910.
Number of locks on canal, 20 ; feeder, 13.....	Size, 110x18 and 100x15.
Length of canal, 66 miles ; feeder, 7 miles ; pond, 5 miles.....	78 miles.
Size of prism, canal and feeder.....	40 26x4.
Size authorized, chapter 213, Laws 1860.....	50 35x5.
Total cost, including improvement and enlargement up to 1875...	\$4,044,000.

LOCKS.

CHAMPLAIN CANAL.						GLENS FALLS FEEDER.			
No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	10¾	8.....	8¾	15.....	8	1.....	10	8.....	10
2.....	10¾	9.....	10	16.....	7	2.....	10	9.....	10
3.....	8½	10.....	9¾	17.....	3¾	3.....	10	10.....	10
4.....	9	11.....	11¼	18.....	9	4.....	10	11.....	11
5.....	9	12.....	9	19.....	9	5.....	10	12.....	11
6.....	9	13.....	10¼	20.....	10	6.....	10	13.....	10
7.....	9¼	14.....	8			7.....	10		

BLACK RIVER CANAL FEEDER AND BLACK RIVER IMPROVEMENT.

Construction authorized	April 19, 1836.
Construction commenced	January, 1838.
Estimated cost at engineers' prices	\$1,068,437.
Estimated cost at contract prices	\$2,431,669.
Canal completed	1849.
Cost of construction.....	\$3,581,954.
Number and size of locks	100 locks, 90x15.
Length of canal to Lyons Falls.....	35 miles.
Length of river to Carthage and fall.....	42 miles ; 9¼ feet.
Size of prism of canal and feeder	42 and 28x4.
Length of navigable feeder, and fall.....	10½ miles ; 6 10-100 ft.
Burden of boats	45 to 50 tons.
Lockage of canal.....	1,082¼ feet.

LOCKS.

No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	10	23.....	10	45.....	10	67.....	10	89.....	10
2.....	10	24.....	10	46.....	10	68.....	9	90.....	10
3.....	10	25.....	10	47.....	10	69.....	9	91.....	12
4.....	10	26.....	10	48.....	10	70.....	9	92.....	10
5.....	10	27.....	10	49.....	10	71.....	10	93.....	10
6.....	10	28.....	10	50.....	10	72.....	10	94.....	10
7.....	10	29.....	10	51.....	10	73.....	10	95.....	10
8.....	11	30.....	10	52.....	10	74.....	10	96.....	10
9.....	12	31.....	10	53.....	10	75.....	10	97.....	10
10.....	11	32.....	10	54.....	10	76.....	10	98.....	10
11.....	11	33.....	10	55.....	10	77.....	10	99.....	10
12.....	11	34.....	10	56.....	10	78.....	10	100.....	10
13.....	8	35.....	10	57.....	10	79.....	10	101.....	10½
14.....	8	36.....	10	58.....	10	80.....	9	102.....	10½
15.....	8	37.....	10	59.....	10	81.....	9	103.....	4
16.....	10	38.....	10	60.....	10	82.....	9	104.....	10
17.....	8	39.....	10	61.....	10	83.....	9	105.....	10
18.....	10	40.....	10	62.....	10	84.....	9	106.....	11
19.....	8	41.....	10	63.....	10	85.....	10	107.....	11
20.....	10	42.....	10	64.....	10	86.....	11½	108.....	12
21.....	10	43.....	10	65.....	10	87.....	10	109.....	12
22.....	10	44.....	10	66.....	10	88.....	10		

ONEIDA LAKE CANAL AND ONEIDA RIVER IMPROVEMENT.

REMARKS.	Oneida Lake Canal.	Oneida River Improvem't.
Construction authorized.....	March 22, 1832.....	April 29, 1839.
Estimated cost at engi'rs prices	\$40,000.....	\$100,049.
Construction completed... ..	1836	1850.
Cost of construction... ..	\$450,678	\$368,164
Purchased of company by State	May 11, 1840	For \$50,000.
Enlargem't of locks authorized	Chapter 46, Laws of 1860.....	
Number and size of new locks.	7, 110x18	2, 120x30½.
Size of prism	40x26x4	80x60x4½.
Length	7 miles.....	20 miles.
Feet of lockage.....	60¼ feet	No. 1, 3 feet ; No. 2, 3¼ ft.

LOCKS.

PRESENT OLD LOCKS.						ENLARGED LOCKS AUTHORIZED.					
No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	iLft.
1 ...	7½	4	10	6.....	7½	1...	8½	4.....	10½	6... ..	8
2.....	8½	5.....	9¼	7.....	6 1-12	2....	8¼	5.....	9½	7.....	7½
3... ..	9					3....	8				

OSWEGO CANAL.

Total cost, \$4,992,926.

REMARKS.	Oswego Canal.	Enlarged Oswego Canal.
Construction authorized.....	April 20, 1825.....	April 15, 1854.
Enlargement of locks.....		Chapter 262, Laws of 1847
Estimated cost at eng'rs' prices	\$227,000.....	\$1,926,336.
Estimated cost at cont'ct prices	\$437,000.....	\$2,051,190.
Construction completed.....	December 10, 1828.....	September, 1862.
Cost of construction... ..	\$565,437.	\$4,427,589.
Number of locks, and size. ..	18, 90x15.....	17, 110x18.
Feet of lockage	154, 85 feet.	154, 85 feet.
Average cost of one lock	\$10,000.....	\$31,000.
Size of prism of canal.....	40 and 26x4.....	70 and 56x7 feet.
Guard-locks.....	Six.....	Five.
Burden of boats.....	50 to 75 tons.....	230 tons.
Length of canal....	38 miles	38 miles.

LOCKS.

No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	11	4 }	9.68	8.....	11¼	12.....	11¼	16.....	8½
2.....	11	5 }		9.....	7¼	13.....	5.65	17.....	10½
3.....	10½	6	7	10.....	9	14.....	9½	18.	9¼
		7	5.866	11.....	11½	15.....	5¾		

CAYUGA AND SENECA CANAL — CAYUGA INLET.

Total cost, \$2,232,632.

REMARKS.	Cayuga & Seneca Canal.	Cayuga Inlet.
Construction authorized, enlargement of locks.....	April 20, 1825.....	May 25, 1836
Enlargement of prism .....	.....	April 15, 1854.
Estimated cost at engineers' prices..	\$811,188.....	\$150,000.
Estimated cost at contract prices...	\$795,273.....	\$160,396.
Canal completed.....	November 15, 1828.....	September, 1862.
Cost of construction.....	\$2,010,320.....	\$214,000.
Number of locks and size ...	11,110x18	1,110x18.
Feet of lockage....	83½ feet..	
Length and size of prism.....	.....	24¾ miles, 70 and 56x7.

LOCKS.

No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	7.28	4.....	9	6... ..	9.60	8.....	5.70	10.....	10
2.....	7	5.	9	7... ..	6	9.....	10	11.. ...	3
3.....	10								

A LIST of the principal places on the Canals, and their distance from each other, as adopted by the Canal Board.

ERIE CANAL.

NAMES OF PLACES.	Albany.	West Troy.	Schenectady.	Fultonville.	Little Falls.	Utica.	Rome.	Syracuse.	Jordan.	Montezuma.	Lyons.	Palmyra.	Rochester.	Brockport.	Albion.	Medina.	Lockport.	Tonawanda.	Lower B. Rock.	Buffalo.
Adams' Basin.	274	267	244	218	187	164	149	108	89	175	57	42	15	5	19	29	47	66	74	78
Albany.....	293	7	30	56	87	110	125	166	105	199	217	232	259	279	293	303	321	340	348	352
Albion.....	53	286	263	237	206	183	168	127	108	94	76	61	34	14	....	10	28	47	55	59
Aurlesville.. . . .	172	46	36	6	34	57	72	113	132	146	164	179	206	226	240	250	268	287	295	299
Belle Isle.....	349	165	142	116	85	62	47	6	13	27	45	60	87	107	121	131	149	168	176	180
Black Rock.....	152	342	319	293	262	239	224	183	164	150	132	117	107	70	56	46	28	9	1	3
Bolivar.....	256	145	122	96	65	42	27	14	33	47	65	80	107	127	141	151	169	188	196	200
Brighton.....	279	249	226	200	169	146	131	90	71	57	39	24	3	23	37	47	65	84	92	96
Brockport.....	288	272	249	223	192	169	154	113	94	80	62	47	20	....	14	24	42	61	69	73
Brockville.....	269	281	258	232	201	178	163	122	103	89	71	56	29	9	5	15	33	52	60	64
Brockways.....	352	262	322	213	182	159	144	103	84	70	52	37	10	10	24	34	52	71	79	83
Buffalo.....	248	345	218	192	161	138	123	82	63	49	31	16	11	31	59	49	73	92	100	104
Bushnell's Basin.....	175	168	145	119	88	65	50	9	10	24	42	57	84	104	118	128	146	165	173	177
Canamillus.....	68	61	38	12	19	42	57	98	117	131	149	164	191	211	225	235	253	272	280	284
Canajoharie.....	145	138	115	89	58	35	20	21	40	54	72	87	114	134	148	153	176	195	203	207
Canastota.....	150	143	120	94	63	40	25	16	35	49	67	82	109	129	143	153	171	190	198	202
Canaseraga Landings.....	180	173	150	124	93	70	55	14	5	19	37	52	79	99	113	123	141	160	168	172
Canton.....	250	243	220	194	163	140	125	84	65	51	33	18	9	29	43	53	71	90	98	102
Cartersville.....	192	185	162	130	105	82	67	26	7	7	25	40	67	87	101	111	129	148	156	160
Centreport.....	151	144	121	95	64	41	27	15	34	48	66	81	108	128	142	152	170	189	197	201
Chittenango.....	210	203	180	154	123	100	85	44	25	11	7	22	49	69	83	93	111	130	138	142
Clyde.....	11	4	19	45	76	99	114	155	174	188	206	221	248	268	282	292	310	329	337	341
Cohoes.....	186	179	156	130	99	76	61	20	1	13	31	46	73	93	107	117	135	154	162	166
Cold Spring.....	277	270	247	221	190	167	152	111	92	78	60	45	18	2	16	26	44	63	71	75
Cooley's Basin.....	14	7	16	42	73	96	141	132	171	185	203	218	245	265	279	289	307	326	334	338
Crescent.....	136	129	106	80	49	26	11	30	49	63	81	96	123	143	157	167	185	204	212	216
Dunbarton.....	140	133	110	84	53	30	15	26	45	59	77	92	119	139	153	163	181	200	208	212
Durhamville.....	296	289	266	240	209	186	171	130	111	97	79	64	37	17	3	7	25	44	52	66
Eagle Harbor.....	220	213	190	164	133	110	95	54	35	21	3	12	39	59	73	83	101	120	128	132
East Arcadia.....	82	75	52	26	5	28	43	84	103	117	135	150	177	197	211	221	239	258	266	270
East Canada Creek.....	244	237	214	188	157	134	119	78	59	45	27	12	15	35	49	59	77	96	104	108
Fairport.....	71	64	41	15	16	39	54	95	114	123	146	161	188	208	222	232	250	269	277	281

A LIST of the principal places on the Canals, and their distance from each other, as adopted by the Canal Board —
(Continued).

ERIE CANAL — (Continued).

NAMES OF PLACES.	Albany.	West Troy.	Schenectady.	Fultonville.	Little Falls.	Utica.	Rome.	Syracuse.	Jordan.	Montezuma.	Lyons.	Palmyra.	Rochester.	Brockport.	Albion.	Medina.	Lockport.	Tonawanda.	Lower B. Rock.	Buffalo.
Picardsville.....	383	366	303	277	246	223	208	167	148	134	116	101	74	54	40	30	12	7	15	19
Pitt Lock.....	205	198	175	149	118	85	80	39	20	6	12	27	54	74	88	98	116	135	143	147
Pittsford.....	251	244	221	195	164	141	126	85	66	52	34	19	8	28	42	52	70	89	97	101
Pool's Brook.....	154	147	124	98	67	44	29	12	31	45	63	78	105	125	139	149	167	186	194	198
Port Byron.....	194	187	164	138	107	84	69	28	9	5	23	38	65	85	99	109	127	146	154	158
Port Gibson.....	227	220	197	171	140	117	102	61	42	28	10	5	32	52	66	76	94	113	121	125
Port Jackson.....	46	39	16	10	41	64	79	120	139	153	171	186	213	233	247	257	275	294	302	306
Reynale's Basin.....	313	306	283	257	226	203	188	147	128	114	96	81	54	34	20	10	8	27	35	39
Rochester.....	259	252	229	203	172	149	134	93	74	60	42	27	...	30	34	44	62	81	80	93
Rome.....	125	118	95	69	38	15	...	41	60	74	92	107	134	154	168	178	196	215	223	227
Schenectady.....	30	23	...	26	57	80	95	136	155	169	187	202	229	249	263	273	291	310	318	322
Schoharie Creek.....	51	44	21	5	36	59	74	115	134	148	166	181	208	228	242	252	270	289	297	301
Shelby Basin.....	306	299	276	250	219	196	181	140	121	107	89	74	47	27	13	3	15	34	42	46
Spencerport.....	271	264	241	215	184	161	146	105	86	72	54	39	12	8	22	32	50	69	77	81
Spraker's....	65	58	35	9	22	45	60	101	120	134	152	167	194	214	228	238	256	275	283	287
St. Johnsville.....	76	69	46	20	11	34	49	90	109	123	141	156	183	203	217	227	245	264	272	276
Sulphur Springs G. Lock.....	326	319	296	270	239	216	201	160	141	127	109	94	67	47	33	23	5	14	22	26
Syracuse.....	166	159	135	110	79	56	41	...	19	33	51	66	93	113	127	137	155	174	182	186
Tonawanda.....	340	333	310	284	253	230	215	174	155	141	123	108	81	61	47	37	19	...	8	12
Upper Aqueduct.....	26	19	4	30	61	84	99	140	159	173	191	206	233	253	267	277	295	314	322	326
Utica.....	110	103	80	54	23	...	15	56	75	89	107	122	149	169	183	193	211	230	230	242
Wayneport.....	239	232	209	183	152	129	114	73	54	40	22	7	20	40	54	64	82	101	109	113
Weedsport.....	190	183	160	134	103	80	65	24	5	9	27	42	69	89	103	113	131	150	158	162
West Troy.....	7	...	23	49	80	103	118	159	178	192	210	225	252	272	286	296	314	333	341	345
Whitesboro.....	114	107	84	58	27	4	11	52	71	85	103	118	145	165	179	189	207	226	234	238
Yatesville.....	62	55	32	6	25	48	63	104	123	137	155	170	197	217	231	241	259	278	286	290
York Mills.....	113	106	83	57	26	3	12	53	72	86	104	119	146	166	180	190	208	227	235	239

CHAMPLAIN CANAL.

NAMES OF PLACES.	DISTANCE FROM.		
	Place to place.	Albany.	Whitehall.
Albany.....	0	0	73
West Troy	7	7	66
Junction	0	7	66
Waterford	3	12	51
Mechanicville	8	20	53
Stillwater village	4	24	49
Bleecker's Basin	2	26	43
Wilbur's Basin	2	28	45
Van Duzen's Landing	5	33	40
Schuylerville.....	3	36	37
Saratoga bridge	2	38	35
Fort Miller	3	41	32
Moses Kill.....	3	44	29
Fort Edward	5	49	24
Glens Falls feeder	2	51	22
Baker's Basin.....	1	52	21
Smith's Basin	5	57	16
Fort Ann	4	61	12
Comstock's Landing.....	4	65	
Whitehall.....	8	73	0

GLENS FALLS FEEDER (*Champlain canal*).

NAMES OF PLACES.	Distance from place to place.
Champlain canal	6
Sandy Hill	2
Glens Falls	3
Head of the feeder.....	2
Head of the pond.....	5
From Junction to Whitehall	64
Length of Glens Falls feeder....	12
Length of pond above Troy dam.....	3
Total.....	79

OSWEGO CANAL.

NAMES OF PLACES.	DISTANCE FROM		
	Place to place.	Syracuse	Oswego.
Syracuse.....	0	0	38
Salina	2	2	36
Liverpool	3	5	33
Mud Lock	2	7	31
Cold Spring.....	1	8	30
New Bridge....	5	13	25
Three River Point.....	2	15	23
Phoenix	2	17	21
Sweet's Lock	3	20	18
Ox Creek	2	23	15
Fulton	4	27	11
Braddock's Rapid.....	4	31	7
Tiffany's Landing	4	35	8
High Dam	1	36	2
Oswego	2	38	0

CAYUGA AND SENECA CANAL.

NAMES OF PLACES.	DISTANCE FROM		
	Place to place.	Montezuma.	Geneva.
Montezuma.....	0	0	21
Seneca river.....	5	5	16
S. Dermont.....	2	7	14
Seneca Falls.....	3	10	11
Chamberlain's Mills.....	2	12	9
Waterloo ...	2	14	7
Teal's	5	19	2
Geneva.....	2	21	0
Lateral canal to East Cayuga village, two miles.....	2	..	..

ONEIDA LAKE CANAL AND FEEDER.

Extends from the Erie canal at Higgins, four miles west of New London, to the Oneida lake, as follows:

Canal proper, from Higgins to Wood creek $3\frac{3}{4}$ miles.
 Wood creek, with a towing-path to the Oneida lake..... $2\frac{1}{4}$ miles.

BLACK RIVER CANAL.

NAMES OF PLACES.	DISTANCE FROM		
	Place to place.	Rome.	Boonville.
Rome.....	0	0	25
Ridge Mills.....	2	2	23
Lock No. 7.....	3	5	20
Walworth's Storehouse.....	1	6	19
Westernville	3	9	16
Wells Brook Aqueduct.....	2	11	14
Stringer's Creek.....	2	13	12
Lansing kill.. ..	1	14	11
Lock No. 31	2	16	9
Lansing kill dam or feeder.....	1	17	8
Lower Falls, Lansing kill	2	19	6
Upper Falls, Lansing kill.....	2	21	4
Lock No. 70	2	23	2
Boonville....	2	25	0
Sugar river.....	3	28	3
Little Falls, Black river.....	1	29	4
Port Leyden	3	32	7
Lock No. 97	1	33	8
Lyon's Falls....	2	35	10
Hawkinsville, on feeder (3 miles from Boonville),	0	28	3
A. Lee's, on feeder.....	2	30	5
R. B. Miller's, on feeder....	1	31	6
State dam, on feeder	4	35	10
Head of reservoir.....	2	37	12

ONEIDA RIVER IMPROVEMENT.

NAMES OF PLACES.	Distance from place to place.
Three River Point	0
Peter Scott Creek.....	4
Oak Orchard.....	4
Caughdenoy	7
Brewerton.....	5

GENERAL SUMMARY.

Erie canal	352	
Albany basin.....	1	
Feeders	8	
	<hr/>	361 miles.
Champlain canal.....	66	
Glens Falls feeder	12	
Pond above Troy dam	2	
	<hr/>	81 miles.
Black River canal... ..	35	
Feeder and reservoir.....	12	
River improvement.....	42	
	<hr/>	80 miles.
Oneida Lake canal and feeder		7 miles.
Oswego canal.....	38	
Baldwinsville side-cut	1	
Oneida River improvement.....	20	
Seneca River towing-path.....	5 $\frac{3}{4}$	
Seneca River improvement	12 $\frac{1}{4}$	
	<hr/>	77 miles.
Cayuga and Seneca canal.....	23	
	<hr/>	
Total		606 miles.
		<hr/>

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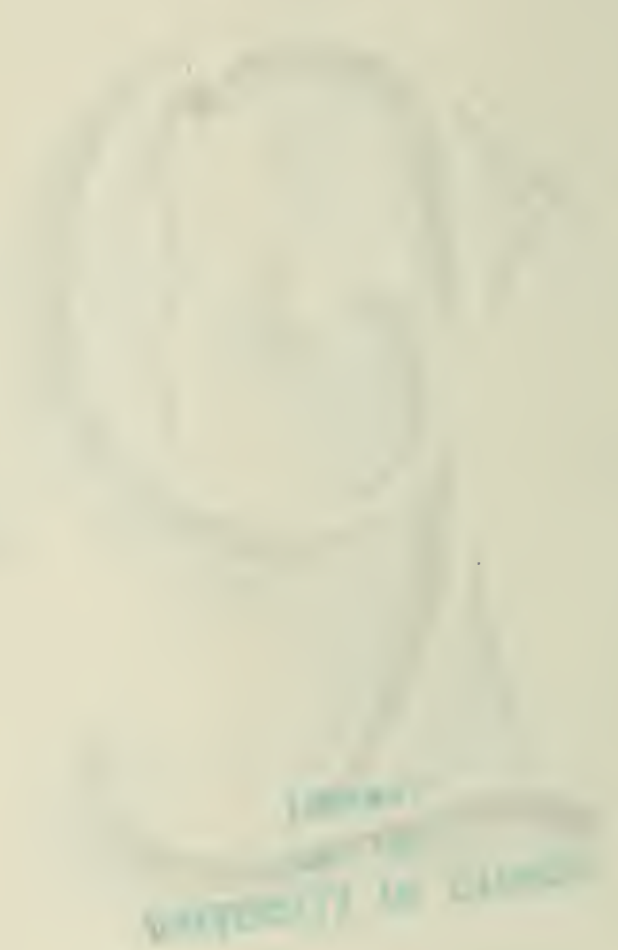
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PROPERTY
OF THE
LIBRARY OF CONGRESS



STATE OF NEW YORK.

No. 10.

N A S S E M B L Y,

JANUARY 14, 1885

LIST

STANDING COMMITTEES OF THE ASSEMBLY.

On Ways and Means.

asted, of Westchester ;	Mr. Curtis, of St. Lawrence ;
owe, of New York ;	Hogeboom, of Columbia ;
Neil, of Franklin ;	Johnson, of Westchester ;
rtwright, of Delaware ;	Ely, of Otsego ;
iddy, of Cayuga ;	Lodewick, of Rensselaer.
bble, of Orleans ;	

On Judiciary.

in Allen, of New York ;	Mr. Baker, of Steuben ;
asted, of Westchester ;	Howe, of Oswego ;
ott, of Livingston ;	Greene, of Orange ;
abbell, of Monroe ;	Church, of Queens ;
rnold, of Otsego ;	Sheehan, of Erie.
ilby, of Jefferson ;	

On General Laws.

ell, of Monroe ;	Mr. Cole, of Schuyler ;
, of Cattaraugus ;	McEwen, of Allegany ;
unes, of Ontario ;	Oliver, of New York ;
vingston, of Putnam ;	Roesch, of New York ;
ott, of Washington ;	Driess, of Niagara.
otaling, of Albany ;	

On Canals.

aker, of Washington ;	Mr. Liddle, of Montgomery ;
noemaker, of Onondaga ;	Hawkins, of Erie ;
t, of Oswego ;	Murray, of Albany ;
each, of Kings ;	Rosenthal, of New York ;
nith, of Queens ;	Clark, of Seneca.
nith, of New York ;	

On Affairs of Cities.

Mr. Barnum, of New York ;	Mr. Demers, of Rensselaer ;
Hendricks, of Onondaga ;	Windolph, of New York ;
Taylor, of Kings ;	Haggerty, of New York ;
Williams, of Chautauqua ;	McCann, of Kings ;
Myers, of Kings ;	Shea, of New York.
Hawkins, of Erie ;	

On Railroads.

Mr. Haskell, of Madison ;	Mr. Rockefeller, of New York ;
Van Allen, of New York ;	Barnes, of Essex ;
Barager, of Tioga ;	Burnham, of Wayne ;
Seeber, of Jefferson ;	Shea, of New York ;
Horton, of Chautauqua ;	Nagle, of Kings.
Hogeboom, of Columbia ;	

On Commerce and Navigation.

Mr. Hasbrouck, of Ulster ;	Mr. McEwen, of Allegany ;
Hawkins, of Suffolk ;	Tynan, of Richmond ;
Barager, of Tioga ;	Lindsay, of Kings ;
Farnum, of Wayne ;	Oliver, of New York ;
Tuck, of St. Lawrence ;	Haggerty, of Kings.
Carlisle, of Orange ;	

On Insurance.

Mr. Bailey, of Genesee ;	Mr. Clark, of Tompkins ;
Van Allen, of New York ;	Briggs, of Saratoga ;
Husted, of Westchester ;	Church, of Queens ;
Williams, of Chautauqua ;	Haggerty, of New York ;
Hopkins, of Greene ;	McClelland, of Westchester.
Storm, of Dutchess ;	

On Banks.

Mr. Taylor, of Kings ;	Mr. Cole, of Schuyler ;
Nash, of Cattaraugus ;	Berry, of Fulton & Hamilton ;
Van Buskirk, of Cayuga ;	Gerety, of New York ;
Kilby, of Jefferson ;	Sherman, of Oneida ;
Whitmore, of Chenango ;	Ives, of New York.
Tappan, of Onondaga ;	

On Internal Affairs.

Mr. Horton, of Chautauqua ;	Mr. Budlong, of Herkimer ;
Garbutt, of Monroe ;	Andrews, of Cortland ;
Dibble, of Orleans ;	Osborne, of Dutchess ;
Raines, of Ontario ;	Whiteman, of Steuben ;
Van Buskirk, of Cayuga ;	Roche, of New York.
Tuck, of St. Lawrence.	

On Affairs of Villages.

Mr. Grippen, of Saratoga ;	Mr. Arnold, of Oswego ;
Garbutt, of Monroe ;	Tynan, of Richmond ;
Lowing, of Wyoming ;	McClelland, of Westchester ;
Olin, of Broome ;	Byrne, of Warren ;
Smith, of Yates ;	Decker, of Sullivan.
Snyder, of Ulster ;	

On Roads and Bridges.

Mr. Priddy, of Cayuga ;	Mr. Whitmore, of Chenango ;
Curtis, of St. Lawrence ;	Kruse, of Cattaraugus ;
Van Duzer, of Chemung ;	Gould, of Lewis ;
Seeber, of Jefferson ;	Bartley, of Schoharie ;
Berry, of Fulton & Hamilton ;	Felter, of Rockland.
Hopkins, of Greene ;	

On Public Printing.

Mr. Farnum, of Wayne ;	Mr. Hawkins, of Suffolk ;
Hasbrouck, of Ulster ;	Eiseman, of New York ;
Sweet, of Oswego ;	Hooley, of Rensselaer ;
Steber, of Oneida ;	Osborne, of Dutchess ;
Nash, of Cattaraugus ;	Driess, of Niagara.
Smith, of New York ;	

On Public Health.

Mr. Cartwright, of Delaware ;	Mr. Demers, of Reusselaer ;
Van Duzer, of Chemung ;	Grippen, of Saratoga ;
Steber, of Oneida ;	Hardin, of Albany ;
Windolph, of New York ;	Nagle, of Kings ;
Myers, of Kings ;	Kenny, of New York.
Van Buskirk, of Cayuga ;	

On Charitable and Religious Societies.

Mr. Whitmore, of Chenango ;	Mr. Dibble, of Orleans ;
Olin, of Broome ;	Finn, of New York ;
Kruse, of Cattaraugus ;	Murray, of Albany ;
Hawkins, of Erie ;	Tumilty, of Monroe ;
Smith, of New York ;	McGoldrick, of New York.
Shoemaker, of Onondaga ;	

On Public Education.

Mr. Baker, of Steuben ;	Mr. Kilby, of Jefferson ;
O'Neil, of Franklin ;	Cartwright, of Delaware ;
Livingston, of Putnam ;	Church, of Queens ;
Howe, of New York ;	Cutler, of Schenectady ;
Clark, of Tompkins ;	Cantor, of New York.
Van Buskirk, of Cayuga ;	

On Militia.

Mr. Raines, of Ontario ;	Mr. Horton, of Chautauqua ;
Bailey, of Genesee ;	Barager, of Tioga ;
Curtis, of St. Lawrence ;	Jackson, of Erie ;
Barnum, of New York ;	McCann, of Kings ;
Farnum, of Wayne ;	Horne, of Niagara.
Berry, of Fulton & Hamilton ;	

On Claims.

Mr. Scott, of Livingston ;	Mr. Smith, of Yates ;
Palmer, of Clinton ;	Reilly, of New York ;
Nash, of Cattaraugus ;	Lodewick, of Rensselaer ;
Scott, of Washington ;	Eiseman, of New York ;
Grippen, of Saratoga ;	Gould, of Lewis.
Liddle, of Montgomery ;	

On Federal Relations.

Mr. Curtis, of St. Lawrence ;	Mr. Demers, of Rensselaer ;
Van Allen, of New York ;	Storm, of Dutchess ;
Snyder, of Ulster ;	Finn, of New York ;
Seeber, of Jefferson ;	Horne, of Niagara ;
Grippen, of Saratoga ;	Brennan, of New York.
Myers, of Kings ;	

On Game Laws.

Mr. Owens, of Oneida ;	Mr. Rockefeller, of New York ;
Howe, of Oswego ;	Ely, of Otsego ;
Myers, of Kings ;	Earl, of Kings ;
Clark, of Tompkins ;	O'Hara, of New York.
Tuck, of St. Lawrence ;	

On State Prisons.

Mr. Palmer, of Clinton ;	Mr. Storm, of Dutchess ;
Howe, of New York ;	Hooley, of Rensselaer ;
Priddy, of Cayuga ;	Tumilty, of Monroe ;
Barager, of Tioga ;	Jackson, of Erie.
Steber, of Oneida ;	

On State Charitable Institutions.

Mr. Olin, of Broome ;	Mr. Tynan, of Richmond ;
Hendricks, of Onondaga ;	Sheehan, of Erie ;
Hubbell, of Monroe ;	Lindsay, of Kings ;
Storm, of Dutchess ;	Kenny, of New York.
Hopkins, of Greene ;	

On Privileges and Elections.

Mr. Heath, of Kings;	Mr. Hasbrouck, of Ulster;
Bailey, of Genesee;	Driess, of Niagara;
Barnum, of New York;	Hagan, of New York;
Owens, of Oneida;	Haggerty, of Kings.
Cole, of Schuyler;	

On Civil Divisions.

Mr. Carlisle, of Orange;	Mr. Rockefeller, of New York;
Arnold, of Otsego;	Decker, of Sullivan;
Baker, of Erie;	Bartley, of Schoharie;
Berry, of Fulton and Hamil-	Reilly, of New York.
Smith, of Queens;	

On Trade and Manufactures.

Mr. McEwen, of Allegany;	Mr. Smith, of Yates;
Steber, of Oneida;	Hooley, of Rensselaer;
Carlisle, of Orange;	Felter, of Rockland;
Owens, of Oneida;	Clark, of Seneca.
Snyder, of Ulster;	

On Manufacture of Salt.

Mr. Lowing, of Wyoming;	Mr. McGoldrick, of New York.
Tappan, of Onondaga;	Wafer, of Kings;
Scott, of Livingston;	Sherman, of Oneida;
Haskell, of Madison;	Kunzenman, of New York.
Smith, of Queens;	

On Public Lands.

Mr. Sweet, of Oswego;	Mr. Barnes, of Essex;
Briggs, of Saratoga;	Johnson, of Westchester;
Baker, of Washington;	Gould, of Lewis;
Heath, of Kings;	Greene, of Orange.
Palmer, of Clinton;	

On Agriculture.

Mr. Briggs, of Saratoga;	Mr. Lowing, of Wyoming;
Sweet, of Oswego;	Whiteman, of Steuben;
Seeber, of Jefferson;	Hardenburg, of Ulster;
Garbutt, of Monroe;	Byrne, of Warren.
Shoemaker, of Onondaga;	

On Indian Affairs.

Mr. Hendricks, of Onondaga;	Mr. Hawkins, of Suffolk;
O'Neil, of Franklin;	Giese, of Erie;
Kruse, of Cattaraugus;	Wafer, of Kings;
Tuck, of St. Lawrence;	O'Hara, of New York.
Budlong, of Herkimer;	

On Petitions of Aliens.

Mr. Scott, of Washington ;	Mr. Andrews, of Cortland ;
Livingston, of Putnam ;	Cutler, of Schenectady ;
Barnum, of New York ;	Earl, of Kings ;
Priddy, of Cayuga ;	Cantor, of New York.
Tappan, of Onondaga ;	

On Two-thirds and Three-fifths Bills.

Mr. Kilby, of Jefferson ;	Mr. Hawkins, of Erie ;
Howe, of Oswego ;	Ives, of New York ;
Baker, of Steuben ;	Roesch, of New York ;
Scott, of Washington ;	Connolly, of Kings.
Hasbrouck, of Ulster ;	

On Engrossed Bills.

Mr. Cole, of Schuyler ;	Mr. Arnold, of Otsego ;
Hendricks, of Onondaga ;	Farrell, of Kings ;
Hubbell, of Monroe ;	Ives, of New York ;
Liddle, of Montgomery ;	Hardin, of Albany.
Whitmore, of Chenango ;	

On Grievances.

Mr. Howe, of New York ;	Mr. Smith, of New York ;
Cartwright, of Delaware ;	Osborne, of Dutchess ;
Dibble, of Orleans ;	Wafer, of Kings ;
Olin, of Broome ;	Brennan, of New York.
Bailey, of Genesee ;	

On Expenditures of the House.

Mr. Smith, of Yates ;	Mr. Clark, of Tompkins ;
Owens, of Oneida ;	Hardenburg, of Ulster ;
Hopkins, of Greene ;	Giese, of Erie ;
Barnes, of Essex ;	Kunzenman, of New York.
Budlong, of Herkimer ;	

On Expenditures of the Executive Department.

Mr. Liddle, of Montgomery ;	Mr. Rosenthal, of New York ;
Hotaling, of Albany ;	Farrell, of Kings ;
Nash, of Cattaraugus ;	Niles, of Albany ;
Van Duzer, of Chemung ;	Hagan, of New York.
Baker, of Erie ;	

On Rules.

Mr. Husted, of Westchester ;	Mr. Ely, of Otsego ;
Taylor, of Kings ;	Coffey, of Kings.
Baker, of Washington ;	

On Joint Library.

Mr. Shoemaker, of Onondaga ;	Mr. Roche, of New York ;
Hotaling, of Albany ;	Connelly, of Kings.
Baker, of Erie ;	

On Sub-Committee of the Whole.

Mr. Howe, of Oswego ;	Mr. Briggs, of Saratoga ;
Windolph, of New York ;	Sherman, of Oneida ;
Gerety, of New York ;	Haskell, of Madison ;
Taylor, of Kings ;	Andrews, of Cortland ;
Coffey, of Kings ;	Burnham, of Wayne ;
Hogeboom, of Columbia ;	Raines, of Ontario ;
Niles, of Albany ;	Williams, of Chautauqua ;
Barnes, of Essex ;	Lowing, of Wyoming.

STATE OF NEW YORK.

No. 11.

IN ASSEMBLY,

JANUARY 6, 1885.

ANNUAL REPORT
OF THE SUPERINTENDENT OF STATE PRISONS.

STATE OF NEW YORK :

OFFICE OF THE SUPERINTENDENT OF STATE PRISONS, }
ALBANY, *January 6, 1885.* }

To the Legislature :

In compliance with law, I transmit herewith my annual report for the year ending September 30, 1884.

Respectfully,

ISAAC V. BAKER, JR.,

Superintendent.

REPORT

OF THE

SUPERINTENDENT OF STATE PRISONS

FOR THE YEAR ENDING SEPTEMBER 30, 1884.

For the last fiscal year the earnings and expenditures for the care and maintenance of the State prisons are as follows :

	Earnings.	Expenditures.	Surplus and Deficits.
Auburn.....	\$114,367 19	\$115,058 88	D. \$691 69
Sing Sing.....	239,285 34	176,071 12	S. 63,214 22
Clinton	47,506 66	99,371 22	D. 51,864 56
Totals	<u>\$401,159 19</u>	<u>\$390,501 22</u>	
Showing net surplus earnings for the year			<u>\$10,657 97</u>

The financial statement for the year ending September 30, 1883, was the most favorable exhibit which had been made in the history of the State prisons. But the result accomplished in 1883-84 surpasses that of the previous year. The expenditures were reduced \$7,454, which approximates two per centum of the total expense of 1882-83. The net surplus is \$1,551.74 larger than it was in the previous year.

PROGRESSIVE FINANCIAL IMPROVEMENT.

As the prison system will become the subject of consideration during the session of the Legislature, the following table is presented to show the progress which has steadily been made in the financial affairs of the State prisons since the present system of management and employment was adopted, to wit :

Table showing the expenditures for the care and maintenance of the State prisons for the last eight years.

1877	{ First 5 mos. under in- spectors ...	\$306, 234 81		
	{ Last 7 mos. under Su- perintend- ent	319, 498 63		
			Deficit.	Surplus
		\$625, 733 44	D. \$317, 411 06	
1878.....		429, 599 76	D. 67, 800 45	
1879.....		422, 737 97	D. 20, 374 18	
1880.....		404, 993 13	D. 18, 086 98	
1881.....		403, 791 56		S. 564 35
1882.....		415, 660 10		S. 6, 257 58
1883.....		397, 955 35		S. 9, 106 23
1884.....		390, 501 22		S. 10, 657 97
NET GAIN IN 1883-84 OVER 1876-77				\$328, 069 03

NOTE.—The expenditures for 1883-84 are less than 66 per cent of the deficiency under the Inspectors' system in 1876.

The figures show that a permanent salutary force works continuously and effectively in the transactions of the prisons. The movement has been so long in duration, and so constant in its momentum, as to make a perfect demonstration. The sole apparent backward step which occurred in 1882 was caused by known specific and transient requirements of the prisons, and does not in fact, make any break in the tendency which is pointed to, in the just recognition of the great merits of the prison system in its purely financial aspects.

PROGRESS IN MORE ESSENTIAL THINGS.

The financial features of the system are not offered as the chief or highest test of the successful operations of the prisons, nor is it so regarded ; yet it must not be dismissed as of no value beside some other matters. It is something of real concern to the people of the State whether the prisons pay their way or cost the tax-payers hun-

dreds of thousands of dollars annually, while they attain no higher or better results in the other most important respects than they do when they pay their expenses.

Last year the Superintendent made a careful analysis of the operations of the prisons, and an exhibit of the results which had been achieved since the present system was adopted. He was able to prove, as he believed, that the prisons were doing the best service they had ever done, when measured by the most exacting tests that could be applied to them, as reformatory institutions. Certain deductions and affirmations were then made in the annual report in regard to the known influences, moral effects and reformatory potency of the prison system.

The Superintendent is prepared to reäffirm the conclusions stated in that report upon these points; and he finds in the reports of the several prison wardens, physicians and chaplains for the last year new evidence of the soundness and correctness of the opinions which he expressed a year ago. Some testimony is so significant that it is herein cited; for, what has been done, what is now being done and what is going on in the State prisons are matters of fact.

IMPORTANT TESTIMONY.

Thus, the warden of Sing Sing prison reports that the discipline there is in the highest sense satisfactory. But the particularly gratifying feature of this good discipline is that the *morale* of the convicts makes the maintenance of the discipline easy. Out of an average population in that prison of 1,522 during the year, only eight men were locked in cells for refractory disposition; this is something which the warden refers to with a pardonable pride and satisfaction. Further, not one man in all has been disobedient and stubborn so as to require discipline beyond one day or two, which is a rare occurrence in a twelve-month term of prison administration.

The physician in Sing Sing prison reports that the physical condition of the prisoners is of the most satisfactory character, and the men yield a respectful obedience to the rules. The convicts feel

the play of moral forces; they have an increasing self-respect; they obey the regulations and behave well. They are not compelled to be quiet and orderly by terrorizing physical force. Their obedience is cheerful because it is voluntary.

The report of the physician in Auburn prison says that the health record and the labor account in that prison during the last year were never equaled before. Disobedience and refractory disposition are confined to about ten per cent of the convicts; ninety per cent of the whole population are habitually obedient during the whole term of their imprisonment. A large proportion of the prisoners pass through their term in the prison without provoking even a reprimand.

The physician at Clinton prison says in his report that the health of the convicts has been better than for some years past.

In this prison the labor account is also upon the whole most satisfactory, when employment is found for all the convicts. Its condition is practically the same as that in the other two prisons.

The good conduct of prisoners is the proof of the *morale* of the prisons and of the efficacy of the system.

The health of the prison population demonstrates that financial results have not been attained at the expense of the health or the strength of the convicts.

The Superintendent is able to say with positive knowledge of all the facts that the gratifying financial results in the State prisons in the last few years are the natural and direct outcome from the orderly and thorough system which is established in the prisons. As a body the convicts have gained in intelligence, in moral character, in organized and disciplined power, in physical strength, in habitual industry, in willing obedience to authority. These factors have wrought more and better products than ever before. For this reason the splendid financial exhibit is the visible and tangible manifestation of the interior forces, which now operate most beneficially in the prisons, both for the State and the inmates of the prisons.

OTHER EVIDENCE OF PROGRESS.

The Superintendent does not mean to assert nor to imply that the State prisons have reached the highest standard which is practicable in penal administration. But he does declare that the progress made in the last eight years is without parallel in the prisons in New York ; and further, that the condition of the prisons and their convict population, at the close of the last fiscal year, was the most satisfactory ever known. While he points to the financial results as the true expression of the moral and physical efficiency attained by the system, he also perceives that there are other proofs of the progress of the prisons which are as notable as they are encouraging. As it is inevitable that the Legislature must consider the subject of prison administration in all its phases during the present session, these facts, which seem to possess profound significance, will be presented. I have put them in the form of tables, in which results slowly reached during years of work and of trial are embodied.







It is said by the most eminent English authorities that the wholesome influence of the system of penal servitude in that country is seen in the corrective and deterrent power which it exerts in preventing crime and in lessening the criminal population and criminal acts. We certainly are witnessing similar effects in this State to the extent that the number of convicts in the State prisons has materially declined, while the population has increased during the last ten years. There is no obvious cause for the change except the one suggested. The decline of commitments to the State prisons and the increase of population are shown in the following table, to wit :

TABLE A.
STATEMENT showing the number of convicts in the prisons, September 30, in each of the last ten years.

NAME OF PRISON.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Auburn...	1,312	1,281	1,388	1,193	1,103	896	903	912	882	765
Clinton.....	553	623	566	649	472	522	530	499	484	572
Sing Sing	1,616	1,605	1,613	1,636	1,596	1,518	1,518	1,526	1,462	1,539
Totals.....	3,481	3,509	3,567	3,478	3,171	2,936	2,951	2,937	2,828	2,876
Population of the State..	4,704,395	4,779,000	4,854,000	4,929,000	5,008,000	5,083,000	5,164,000	5,245,000	5,326,000	5,408,000

The population of the State is estimated or calculated by adding the ascertained average annual per centum increase as the increment.

A graphical demonstration of the figures sets out the change and the contrast in a striking way, viz.:

Year.		Population.		Convicts in prison.
1875,		4,704,395		3,481
1884,		5,408,000		2,876
Ten years <i>gain</i> in population,		703,705.		
Ten years <i>decline</i> in convicts,		605.		

The increase in population in the State is 700,000. The decline in the number of convicts in the State prisons is 605. The increase in population is fifteen per cent. The decline in the total number of convicts in the prisons is nearly nineteen per cent.

The table is supplemented by another, which contains the commitments in each prison in each year and the discharges respectively. While the first shows condition at the end of each year; the second, which is below, gives the transactions of each year in respect to the changes made in the convicts in the prisons. This table is the following:

TABLE B.
STATEMENT showing the number of prisoners received and discharged at the State Prisons during the ten years ending September 30, 1884.

	AUBURN PRISON.		CLINTON PRISON.		SING SING PRISON.	
	Received.	Discharged.	Received.	Discharged.	Received.	Discharged.
1875.....	637	517	242	169	1,075	758
1876.....	657	688	220	222	1,038	1,073
1877.....	608	501	241	298	1,150	1,031
1878.....	569	564	365	282	990	917
1879.....	292	381	113	290	707	757
1880.....	208	415	247	197	725	803
1881.....	317	311	204	198	788	788
1882.....	333	324	167	196	743	735
1883.....	339	369	212	227	775	818
1884.....	222	339	272	184	794	713

For the last year there is an excess of commitments over discharges. But it is one of the conclusions, firmly established by experience, that penal offenses multiply, and commitments to prisons increase during hard times in any country. The number of convicts in Clinton prison has been maintained by a large draft from Sing Sing; and the number in the latter has been recruited from the large cities tributary to it, on account of special causes readily found in the unusual depression of business, and the difficulty in finding steady and remunerative employment for labor. This aggregate excess for the year is forty-eight, which is less than two per cent of the whole number. That a population of five and four-tenths millions, under the severe stress of the business depression, and enforced idleness, which have prevailed during the last year should have added but forty-eight convicts to the number in its prisons, cannot be deemed an impeachment of the prison system of the State.

FEWER RECOMMITMENTS.

In the last report by the Superintendent, he cited the suggestive testimony of Warden Brush, of Sing Sing prison, that the number of convicts "recommitted (in Sing Sing) is growing less each year, showing conclusively that the prison management tends to the reformation of the convicts."

In the report of Chaplain Searls of the Auburn prison, for 1883, there was further testimony upon this feature of the prison administration that is encouraging. With more than usual patience and persistence, Chaplain Searls had followed a considerable number of men into their life after they were discharged from the prison. What he learned he thus states, viz. :

"During the year there have been discharged from this prison 369 men. I have been to considerable trouble to keep track of these men. Up to this time I can learn of but nine of the 369 who have again committed crime, and but four of them have been returned to prison. The number present is smaller than at any time within the last past fifteen years. Considering the constant

and vast increase in the population of the State, I consider our diminishing prison population as one of the hopeful signs of the times."

SUCCESS AND MAINTENANCE.

Finally, the statistical evidence of the gradual improvement in prison affairs will be completed by the table, which presents the expenditures and the income of each and of all the prisons since the present system of management and labor was established. The conduct of a prison, in which daily labor is the prime characteristic of administration, is eminently a business affair. And, for this reason, the figures in the following table are particularly valuable, because they are the historical record of the business aspect of the prison system in its two sides, namely: Its cost for maintenance and its income from well-directed industries. And it is a fact, which should be recognized, that the system was begun in the midst of a great business convulsion, and that it is now in the throes of another. It is rare that a business undertaking on a large scale, in our country, is subjected to such buffeting as this one has been during a single decade. Had general prosperity prevailed steadily in the country during the whole term, no doubt better results would have been reached, and the system would have been subject to less complaint and attack from external quarters than it has been. It has been exposed to violent assault by no fault of its own, by no failure to perform its part well, but largely on account of the special and extraordinary financial and industrial disturbances which have existed. What has been spent and what has been earned are exactly exhibited in the table, viz.:

TABLE C,

*Showing expenditures, earnings, deficit or surplus in each prison
for eight years.*

1877.

	Expenditures.	Deposits.	Surplus and deficits.
Sing Sing.....	\$282,476 59	\$156,597 55	D. \$125,879 04
Auburn	179,865 13	83,978 25	D. 95,886 88
Clinton	163,394 72	67,746 58	D. 95,645 14
Totals	<u>\$625,733 44</u>	<u>\$308,322 38</u>	
Net deficiency			<u>\$317,411 06</u>

1878.

	Expenses.	Earnings.	Surplus and deficits.
Sing Sing.....	\$175,611 77	\$219,018 20	S. \$43,406 43
Auburn	150,820 42	116,641 18	D. 34,179 24
Clinton	103,167 57	26,139 93	D. 77,027 64
Totals	<u>\$429,599 76</u>	<u>\$361,799 33</u>	
Net deficiency			<u>\$67,800 45</u>

1879.

	Expenses.	Earnings.	Surplus and deficits.
Sing Sing.....	\$187,693 23	\$226,907 04	S. \$39,213 81
Auburn	126,505 72	128,694 00	S. 2,188 28
Clinton	108,539 02	46,762 75	D. 61,776 27
Totals	<u>\$422,737 97</u>	<u>\$402,363 79</u>	
Net deficiency			<u>\$20,374 18</u>

1880.

	[Expenses.	Earnings.	Surplus and deficits.
Sing Sing.....	\$184,277 69	\$217,028 69	S. \$32,751 00
Auburn	130,108 75	114,925 00	D. 15,183 75
Clinton	90,606 69	54,952 46	D. 35,654 23
Totals	<u>\$404,993 13</u>	<u>\$386,906 15</u>	
Net deficiency			<u>\$18,086 98</u>

1881.

	Expenses.	Earnings.	Surplus and deficits.
Sing Sing.....	\$187,127 20	\$229,251 14	S. \$42,126 94
Auburn	118,781 85	113,658 63	D. 5,123 22
Clinton	97,882 51	61,443 14	D. 36,439 37
Totals	<u>\$403,791 56</u>	<u>\$404,355 91</u>	
Net surplus.....			<u>\$564 35</u>

1882

	Expenses.	Earnings.	Surplus and deficits.
Sing Sing.....	\$193,127 20	\$241,321 93	S. \$48,194 73
Auburn	122,926 43	120,234 16	D. 2,692 27
Clinton	99,606 47	60,361 59	D. 39,244 88
Totals.....	<u>\$415,660 10</u>	<u>\$421,917 68</u>	
Net surplus.....			<u>\$6,257 58</u>

1883.

	Expenses.	Earnings.	Surplus and deficits.
Sing Sing.....	\$183,219 73	\$237,238 48	S. \$54,018 75
Auburn	119,857 42	125,280 30	S. 5,422 88
Clinton	94,878 20	44,542 80	D. 50,335 40
Totals.....	<u>\$397,955 35</u>	<u>\$407,061 58</u>	
Net surplus.....			<u>\$9,106 23</u>

1884.

	Expenses.	Earnings.	Surplus and deficits.
Sing Sing.....	\$176,071 12	\$239,285 34	S. \$63,214 22
Auburn	115,058 88	114,367 19	D. 691 69
Clinton	99,371 22	47,506 66	D. 51,864 56
Totals.....	<u>\$390,501 22</u>	<u>\$401,159 19</u>	
Net surplus income.....			<u>\$10,657 97</u>

THE TRANSACTIONS LAST YEAR.

In Auburn prison the average number of convicts fell, in 1883-84, to 843; in the previous year, 1882-83, the average number was 930; the loss in men was eighty-seven, or nearly one man in every

ten. The decline in earnings is not so large as the loss in men, showing a larger labor account *per capita*.

In Clinton prison, the wages paid for the contract prisoners were not so high as in the previous year, on the average, the percentage of prisoners capable of work is smaller in Clinton prison than in the others.

WHAT THE TABLES MEAN.

There is more significance in these several tables than may appear to the cursory examiner of them. They need to be taken together as parts of a whole, for the use of all of them is requisite to get a clear and adequate knowledge of the operations and tendencies of the present prison system. In the way of recapitulation, the connection of the tables can be briefly yet comprehensively stated.

The total number of convicts in the prisons has declined over one-sixth in eight years. This large reduction permits, of course, a diminution of the cost for subsistence and maintenance.

But such reduction in the aggregate convict population in the prisons might be expected to show smaller earnings. The contrary is the fact. The much smaller number of convicts have earned more income for the State than the larger number. Hence, the tables make an irrefragable demonstration of the superiority and high efficiency of the system, and also of the condition and the capacity of the prisoners.

The tables deal with physical and financial matters, primarily and chiefly. Between them and other results, and other testimony, there is entire harmony. The moral elements and factors in the problem do not clash with the physical and the financial. The system is symmetrical. The Superintendent does not believe that it has reached the highest point of efficiency. He believes that it can be further improved, so that it will have a still more beneficial power in the moral and reformatory way. Indeed, its present successful operations point to the amendments or rather to the additions to it, and afford, too, the means of providing them. What these are will be further indicated specifically in this report.

A NEW SYSTEM MUST BE ESTABLISHED.

So much is said in order to give a fair and a clear conception of the present system and its merits, because the duty will devolve upon the Legislature to establish, by law, some system for the management of the prisons, in respect to the employment of the labor of the convicts. The last Legislature repealed the contract labor system in the prisons, and prohibited its use by the Superintendent. It not only repealed the present system, but prohibited the contracting of the labor of the convicts in any manner. The Superintendent can renew no contracts, can make no contracts, either like those hitherto made or upon the "piece-price plan," which is regarded with so much favor by many prison reformers. When it did this act, the Legislature did not make any provision for the employment of the convicts in the only legal manner under the existing laws. The Legislature failed to make a large appropriation of money from the treasury to meet the necessary expenditures, to buy machinery and stock for engaging in manufacturing on State account, and for hiring and paying for the citizens' skilled labor, which will be needed to begin and direct extensive manufacturing operations in the prisons. The establishment of this system has been precipitated upon the Superintendent, since the close of the fiscal year, by the abandonment of one contract and by the failure of one large contracting firm. As other contracts will soon expire, it is plain that the question of adopting some legal system, and making sufficient appropriations of money to carry it out effectively cannot be prudently and safely deferred any longer.

IMPERATIVE NEED OF LEGISLATION.

The possible prospective embarrassment of the Superintendent was apprehended by him before the last Legislature adjourned. In reply to the inquiry of the Senate, he stated his views in respect to the necessity, and the advantage of action by the Legislature. There is not sufficient money to enter upon the State account system thoroughly and economically. There is no other legal mode of working the convicts whose labor is not contracted

for. Further, the Superintendent is unable to foretell what the action of the Legislature may be, what plan for employing the convict labor may be adopted.

THE CONDITION OF THE LAW.

The present situation should be well understood. Until the passage of the law by the last Legislature, repealing the contract system in the prisons, the Superintendent had the right to work convicts by State account or by contract, or partly by one and partly by the other, as, in his discretion, he should deem best. By the act of the last Legislature (chap. 21, Laws of 1884), no discretion is granted to the Superintendent. He is compelled to work the convicts on State account. The Superintendent felt that such was the force of the law when it was passed; and said to the Senate: "The act of 1884 in substance, through its prohibitive force, enacts that hereafter the system of labor in the State prisons shall be by the State." During the month of September, the Superintendent asked the opinion of the Attorney-General upon the question of his legal power to employ labor of prisoners upon the "piece-price plan," as this mode of working convicts is regarded with special approbation by many of the most earnest prison reformers. But it will be seen upon reading the following opinion of the Attorney-General, that the judgment of the Superintendent in respect to the absolute restriction of his powers was correct. The opinion of the Attorney-General says, to-wit:

STATE OF NEW YORK:

OFFICE OF THE ATTORNEY-GENERAL, }
ALBANY, *September 3, 1884.* }

ISAAC V. BAKER, JR., Esq., *Superintendent State Prisons:*

DEAR SIR — Your two communications have been received. In answer to the proposition contained in one of them * * * * and in answer to the proposition contained in the other, viz.: have you "the right to employ the convicts in the State prisons on what is known as the 'piece-price plan,' namely, to contract by the piece or pound, instead of by the day as by the present system," I would

state that chapter 21 of the Laws of 1884 enacts that “the Superintendent of State Prisons shall not, nor shall any other authority whatsoever, renew or extend any existing or pending contract, or make any new contract for the employment of any convicts in any of the prisons, penitentiaries or reformatories within this State.” I am, therefore, of the opinion that you would have no authority to enter into any contract, which would bind you for any specified time, or to do any specified amount of work for a definite price.

The intention of the Legislature was (which intention is clearly and unequivocally expressed in the statute above referred to) to prohibit and abolish the contract system of labor in State prisons.

Contracting to perform a certain amount of work, “by the piece or pound,” for parties furnishing the materials, is as much a contract for the employment of convicts as was the letting of their labor at a fixed price *per diem*, and tends to perpetuate the evil which the Legislature of our State sought to avoid, viz.: competition of the honest toil of freemen with that of criminals in a state of servitude.

Very respectfully, your obedient servant,

D. O'BRIEN,
Attorney-General.

Soon after this opinion was made, the occasion arose for further counsel and instruction in regard to a special opportunity for employing some of the prisoners at Clinton prison. The Superintendent embraced the chance, so offered, to obtain legal counsel as to his powers to buy machinery and materials for the purpose of employing the convicts in manufacturing on account of the State. In reply to such inquiry the Attorney-General gave an opinion as follows, viz.:

STATE OF NEW YORK:

OFFICE OF THE ATTORNEY-GENERAL, }
ALBANY, *September 16, 1884.* }

HON. ISAAC V. BAKER, Jr., *Superintendent of State Prisons:*

DEAR SIR — I am in receipt of your communication of the 13th inst., asking the following questions:

First. “Have the New York Clothing Company, under the contract at Clinton prison, the right, with the approval of the Superintendent of Prisons, to sublet a portion of the convicts to be employed in the erection of a new State building and wall at Clinton prison?”

Second. “Has the Superintendent of Prisons the authority under the present law to purchase materials and machinery for the purpose of employing the convicts in manufacturing on account of the State?”

In answer thereto I have the honor to reply as follows * * * as to the second question: There is no doubt that prior to the “contract labor system” the State prison authorities had power to purchase materials and machinery for the employment of convicts, and the substitution of that system for the old plan of employment of the convicts by the State was not compulsory but discretionary, and was instituted as a matter of expediency.

Chapter 460 of the Laws of 1847, subdivision 4 of section 8, prescribes the duty of the agent as follows: “To superintend all the manufacturing and mechanical business that may be carried on in the prisons; to receive the articles to be manufactured and to sell and dispose of the same for the benefit of the State.”

§ 5. “To purchase such raw materials as may be necessary to be manufactured by the convicts.”

Section 77 of said act, as amended by section 9, chapter 240 of the Laws of 1854, and section 12 of chapter 451 of the Laws of 1874, provides that “whenever the board of inspectors shall deem it expedient and proper for the agent and warden of either of the prisons to enter into any contract for the labor and services of convicts for more than *one year*, it shall be the duty of said board,” etc.

The act does not make it obligatory upon the prison authorities to let the labor of convicts, but requires that when they do so they shall proceed in a certain manner and conform to certain requirements. The same is true when the labor and services of convicts are to be let “for a term not *exceeding one year*” (chap. 399, Laws of 1860).

Chapter 458 of the Laws of 1866 was entitled “An act in relation to the State prisons and the employment of convicts therein.” This act expressly gives the prison authorities power to purchase raw materials, machinery, etc., for the purpose of employing the convicts. It provides as follows:

SECTION 1. “In addition to the powers now conferred by law upon inspectors of State prisons, said inspectors are hereby authorized to employ, or direct to be employed, the convicts confined in the several State prisons of the State in such manner and in such branches of industry, and at such kinds of labor, as in the judgment of said

inspectors shall be most advantageous to the interest of the State, and not inconsistent with the health and welfare of said convicts or the good order and discipline of said prisons.”

§ 2. “Such branch of industry and labor shall not be carried on, and such convicts shall not be employed elsewhere than at the respective prisons, where such convicts may be confined, or the yards and grounds connected with the same ; and the said inspectors shall have full power to carry on or direct to be carried on under the superintendence of the agents and wardens of the respective prisons, such branches of industry and labor for and on behalf of this State and to procure and maintain, or cause to be procured and maintained, all necessary materials, machinery, tools, apparatus or accommodations needful to that end.”

Section 6 of chapter 107 of the Laws of 1877, entitled “An act in relation to the Superintendent of State Prisons, and for the more efficient and economical management of said prisons,” provides that “the system of labor in the State prisons shall be by contract or by the State, or partly by one system and partly by the other, as shall be in the discretion of the Superintendent deemed best.”

Prior to the act of 1884, it was discretionary for the prison authorities to employ the convicts themselves on behalf of the State and to purchase the necessary machinery and materials for that purpose, or to let the labor of the convicts to other parties at a certain fixed price *per diem* for each convict, which is known as the “contract labor system.” This latter system is now prohibited by chapter 21 of the Laws of 1884, which enacts that “the Superintendent of State Prisons shall not, nor shall any other authority whatsoever, renew or extend any existing or pending contract, or make any new contract for the employment of any convicts in any of the prisons, penitentiaries or reformatories within this State.”

This leaves all the statutes prescribing and regulating the labor of convicts in force, except those statutes which refer particularly to the “contract labor system,” and as the law in imperative terms says: “All convicts in State prisons, except such as are confined in solitude, shall be kept constantly employed at hard labor during the day,” I am of the opinion that it is not only legal for the prison authorities to purchase materials and machinery for the purpose of employing the convicts, but that it is their duty to do so.

It is possible that this view of the matter so far as it relates to your powers and duties may be rendered nugatory or impossible for want of a proper appropriation by the Legislature. What, if any

thing, has been done in that direction I am not advised. It is unnecessary to add that unless the Legislature has appropriated money to enable you to carry out such laws as still remain unrepealed, in regard to the employment of the inmates of the prisons, great care and caution should be used in dealing with the subject.

Very respectfully, your obedient servant,

(Signed)

D. O'BRIEN,

Attorney-General.

ONLY STATE ACCOUNT SYSTEM PERMITTED.

Until there shall be further legislation, the labor of all prisoners in the State prisons not contracted must be employed on State account. The appropriation which was made by the last Legislature, "for care and maintenance," is wholly insufficient to work the prison on State account. The Legislature must decide two questions :

First. Will it adhere to the State account system ?

Second. How much money will be necessary to carry on that system, with the energy and activity demanded to keep the prisoners at work with the industry which their self-support, the mandate of the law and their welfare in the prisons compel ?

It is not safe, as it is not economical, to undertake such business in a feeble, desultory and half-hearted manner. In order to spare the people from heavy taxation on account of the prisons ; and more important, in order to preserve the efficacy of the reformatory influences which are now working so admirably in the prisons, the regularity and the diversity of the present labor system must be maintained just as constantly as it has been under the existing system.

THE GRAVITY OF THE QUESTION.

It will be observed that the Attorney-General admonishes the Superintendent that "in regard to the employment of the inmates of the prisons, great care and caution should be used in dealing with the subject." The Superintendent has a most profound sense of the perplexities and the difficulties of the existing situation. He has studied the problems which are presented ; he knows well what

disastrous results attended the operation of the State account system, which became so intolerable that the people, by their suffrage, swept it away. He has borne witness to the success of the system which has stood every test applied to it. He has seen it improve year by year, and come closer to the ideal standard. He regards it superior to any other ever practiced in the State, when it is measured by actual attainments, whether they be material or moral and reformatory. He deemed it a grave mistake to rashly and abruptly change the system, with no well-considered plan to take its place. He has the opinion now which he expressed in his last annual report, to-wit :

“ The prisons of New York are doing well ; better in all respects than they ever have done before the last five years. Before any change is made in the system, their condition, operations, tendencies and capacities for useful work should receive the most considerate investigation. The people of the State have great interests at stake ; the prisoners who fill the prisons have also. At the same time new plans, new theories, or exploded systems in new forms or guises, should be brought to the test of the most critical examination. It is easy to make a mistake ; but it may cost millions of money to pay for it and years of time by the suspension of the system now working so admirably and effectively. It should be made very clear that a change will be beneficial.”

WHAT CANNOT BE DONE.

The convicts in prison must be kept at labor. It is necessary for their physical and moral well-being. The experience of the last hundred years in every enlightened nation in the world positively affirms this fundamental principle. The conspicuous prison administrators and the greatest prison reformers declare that *productive labor* by the inmates of prisons is a vital condition of success in reforming the convicts, and is the corner stone in any practical and humane system. Besides, every week in the year, several men are sent by judicial sentences to the State prisons to be confined and to be engaged “ at hard labor ” during

the term of their sentences. Unproductive labor is a curse to the prisoners ; it fails to reform, but debases, hardens and brutalizes. For this reason it is not to be tolerated ; and it is less tolerable because the majority of the convicts in our State prisons are young men, many of whom can be saved from continued lives of crime by the moral influences of judicious discipline, industrial training and humane treatment in the prisons.

If it be true that the prime ends of penal punishment in prison can be reached in the highest degree by a system whose material results will pay the pecuniary cost of the prison maintenance and care, shall this fact be ignored ? That is, shall the people be taxed several hundred thousand dollars every year, when there is not only no need of it, but there is no advantage in doing so ? There is not so much prosperity at this time ; there is not such redundancy of money and such surplus of income as to recommend this policy to any servant or representative of the people.

WHY SHALL A CHANGE BE MADE.

Why shall the labor of all the available convicts be employed on State account.

This is the pregnant inquiry which is addressed to all those in authority in the State, who have any thing to do with the administration of the prisons.

Shall a change be made for sanitary reasons ?

The physicians report the prisoners in a high degree of health, better than ever before.

Shall a change be made for moral or reformatory reasons ?

The wardens and other officers report that the order, the discipline, the morale of the prisoners were never so excellent as they are now.

Shall a change be made for financial reasons ?

The net earnings of the prisons were the largest during the last year they have ever been.

Shall a change be made because any deterioration in the system has been discovered or any bad tendencies ?

The statistical statements and the accompanying reports of the

prison officers demonstrate that no such condition is known ; but on the contrary, constant and manifest improvement is going on.

Then why shall the change be made. Is it to remove alleged competition in labor and injury to free labor?

IS COMPETITION EXAGGERATED?

If the prisoners are employed at all, competition to some extent is inevitable. Prisoners *must be employed at useful labor*. That is the foundation of a proper prison system. Upon it any sound structure must be built. It is a fair question for full consideration, to-wit:

What is the degree of competition caused by the full employment of the available manufacturing labor in the State prisons, and what system will reduce competition to the minimum point?

Only a percentage of all convicts can be used in productive work. Some are unfit for it; some must be employed in the care and the service of the prisoners. To show the extent of this, the following figures are taken from the reports of the several prisons for the year 1883-'84, that is, the last fiscal year:

	Average population.	Employed on contracts.	Per cent of whole employed on contracts.
Sing Sing prison.....	1,522	1,262	83
Auburn prison.....	843	690	70
Clinton prison.....	502	401	80
Totals.....	<u>2,867</u>	<u>2,353</u>	Average <u>.77$\frac{2}{3}$</u>

The number of convicts not employed upon contracts is 514. This is a fair normal average.

Hence it appears that the competing power of the State prisons is less than 2,400 *convicts*. The most scientific tests and measures that the English prison managers have been able to apply to the comparative productive force of convicts have resulted in an average conclusion of fifty per cent of the capacity of the same number of free men or citizens. That is, 1,000 convicts in prison are equivalent to 500 free laborers. Upon this basis all the contract labor

in the State prisons in 1883-'84 is equivalent to 1,176 free laborers. It is well known that the artisans in the United States do more work in a given time than European mechanics do. It is to be presumed that the convicts in our prisons would show the same comparative superiority as the free laborers do. For this reason the productive energy of our prison convicts may be placed at a higher figure than fifty per cent. I would put it at sixty per cent of the whole number of contract laborers. This would make the entire force of contract labor in the State prisons in 1883-'84 equivalent to 1,412 free laborers. That is the scientifically *calculated* extent of it. This labor was spread in various classes of manufacture.

The approximate sum of free labor in the State which is said to be exposed to danger by the employment of prison labor in production can be computed. Mr. Edward Atkinson, of Boston, who is one of the most eminent statisticians and economists in the country, printed a paper during the current year on "The Rate of Wages." In that paper Mr. Atkinson said:

"Finally, it appears that in the census for the year 1880 the population of the United States numbered a little over 50,000,000. I will disregard the fractions in the following statement: Of this population, 17,400,000, in round figures, were found to be engaged in some sort of gainful occupation. The rest consisted of women who did the work of families, of retired persons, and of children. Of this number, substantially 150,000 were employed in the service of the government, leaving 17,250,000 producers, who, by exchanging products with others, also obtained the means of living, and thereby became consumers. Of this number the census discloses the fact that 1,050,000 were employed in what may be called mental rather than manual work. They consisted of clergymen, lawyers, teachers, artists, chemists, engineers, officials of railroads, banks and insurance companies, officials of manufacturing and other corporations, merchants, traders and dealers. In this list capitalists living wholly upon the income of capital are not included. How many the capitalists number the census does not disclose, but they are relatively very few, and their

possessions represent but relatively a small part of the total wealth of the country, this wealth being more widely diffused, and enjoyed by a greater number of persons, than in any other country in the world. Deducting 1,050,000 of those engaged in gainful operations, we have the remainder, 16,200,000, who constitute the actual working class, if the title or class may be rightly applied without offense in a scientific treatise. Seven millions of these were farmers and farm laborers, the rest artisans, mechanics, clerks, salesmen and saleswomen, laborers, factory operatives, domestic servants and other wage earners."

This furnishes data for the computation of the citizens' labor in New York. The population of the United States is now probably over 58,000,000; that of the State of New York is about 5,400,000. This State contains, therefore, about one-eleventh of the population of the country, but it has fewer agricultural laborers than some large regions, and more men here are engaged in manufacturing. The proportion of employees or wage-earners would be one-eleventh of 9,500,000, or less than 900,000. But as the State has more of the mechanic class and fewer farm laborers than the average for the whole country, the figures for the whole number can be taken, perhaps, at 950,000 or 1,000,000. Can any man seriously claim that the interests of the million of men are injured because 2,300 men in the prisons do the work of 1,400 men who are free laborers and even this number is divided in eight different industries.

Can any man maintain that it is cheaper and better for the common good not to employ the 2,300, than it is to work them as usefully as practicable?

Can any man believe it is better for the common good, for the million of laborers in the State, to support the 2,300 in idleness or useless labor, out of taxes levied on the income and capital of the people, than it is to employ the 2,300 and make them support themselves?

The force of the competition is trivial, as appears when it is examined rigorously. It is more economical in every sense to let

these men in prison earn their living than it is to tax the people of the State to pay for their support.

COMPETITION IS NOT EVADED.

Is competition avoided by working on State account?

Under the contract system the labor is sold to contractors, and they furnish all the materials and take all the risks of the business. Under the State account system the State enters the field as a new manufacturer, buys machinery and stock to work, hires the skilled mechanics to conduct the business, puts the prisoners at work and sells the product as well as it can, taking all the risks of the business.

The present contractors will retire from the prisons and will pursue their business elsewhere. The State will come in as the capitalist and employer and will thus become a new competitor. So much more capital will be added to the sum of the manufacturing capital in the State.

In what way free labor will gain by the change is not clear. To increase the number of competitors is not the usual way to mitigate the severity of competition. The English people have been through this school of experience and have rejected the State account plan of manufacturing as the most objectionable form and the most injurious system to free labor. But the English prison system in its most approved condition insists upon productive labor as the fundamental rule.

Neither free labor nor the tax-paying people will apparently gain any thing by the change. If the prisoners will be gainers that does not yet appear. They will work for the State and not for the contractor with the State. They work now under the control and the direction of the State. The contractors are not permitted to have possession or direction of the convicts. A change will make no difference with *them*, if they be employed continuously as the law requires, and as due regard for them demands.

THE RISK OF DEFICIENCIES.

While it is easy to see who will not gain by a change, it cannot be denied that there are possibilities of great loss. These should be carefully looked at. The prisons now are self-supporting. They have been made so since the present system was established. They were not so before it was adopted. Their care and maintenance cost the people hundreds of thousands of dollars annually. They were worked on the State account plan. Shall the people be again taxed heavily to maintain the prisons after the demonstration that they can support themselves and be made at the same time and by the self-supporting system reformatory in the highest degree ever reached by the prisons of the State?

AN EMERGENCY IS EXISTING.

The State has no plant of machinery for prison work; it has no store of raw materials to manufacture; it has several hundred men on its hands and will have more within sixty days. That is, nearly all the men in the Clinton and Auburn prisons will have to be provided by the State with employment; with machinery to use; with materials to work up; with technical and mechanical instructors and directors in their operations. There is little time for deliberation now; there is none for further delay. The old system is abolished; no new one is provided.

LARGE SUMS OF MONEY REQUIRED.

If the State account plan is to be worked, an early and adequate appropriation of money must be made to carry it on. The Superintendent is of opinion that not less than seven hundred thousand dollars above the sum for maintenance and ordinary repairs will be necessary during the present fiscal year. That would make a total appropriation of twelve hundred thousand dollars for this year, or an increase of seven hundred thousand dollars. The early determination of the question of the future system will afford relief from perplexing and oppressive responsibility. For whatever plan shall be adopted the Superintendent will then be able to pay

attention to the effort, which he is prepared to make, to secure efficiency and economy in its operations, and to realize the best results in a moral and reformatory way which any prison system in this day must regard as of primary concern.

THE RESPONSIBILITY OF THE STATE.

The Superintendent refers earnestly and pointedly to the latter feature, because this practical phase of prison administration is pressed upon his consideration.

The average term of the prisoners in the State prisons is less than five years, leaving out life sentences. The large majority of the population in our State prisons are young men. They are not habitual criminals.

The majority of the prisoners have no trade by which they can live. They have bad habits; one is idleness; another is use of intoxicating liquors.

Any man who has to deal with this great question should take full cognizance of the fact, that after a brief term in the State prison these young men will return to society, free to pursue their course. What impress will prison administration make upon these men? What tendency will it give to their lives? Shall they become industrious and honest men, capable of self-support, or shall they fall to vicious and criminal ways?

These statistics from the prison report of last year forcibly tell the truth:

Whole number of convicts included.	Number under 30 years.	Number under 25 years.	Use liquors.	Use no liquors.	Idle when arrested.
2,876	1,762	1,157	2,184	391	*1,056
=====	=====	=====	=====	=====	=====

Two-thirds of the whole number are below thirty years; almost one-half is below twenty-five years; ten out of every twelve use liquors; five-ninths of those embraced in the industrial column were idle when arrested. These youths and young men need "to be born again." A new birth for the most of them is possible, is

*The whole number referred to in this item is but 1,831.

practicable in prison. The Superintendent has such a firm belief in this, that he pleads for the system of productive labor, of humane discipline, of rational training, of habitual industry, of common school education for the illiterate, and wholesome moral instruction for all, that will promote the rescue of these men from their peril, and make good citizens and worthy men of the most of them.

THE DEMANDS MADE OF A PRISON SYSTEM.

It is to be regretted that a commission was not selected by the last Legislature to examine the whole subject in a deliberate and careful manner, and to make report thereon to the Legislature at the opening of the session. There is no likelihood that the Legislature will learn too much in respect to the operations of prison systems and the positive requirements of one that is fit, worthy of New York, and just to the tax payers, as well as really beneficial to the men in the prisons.

Since no commission was appointed, and no treatment of this vital question could be expected from such source, the Superintendent has made systematic inquiry as to certain topics which are of special import in the intelligent discussion of a mode of prison administration. While he has not obtained so much as he hoped for; that is, he did not secure the testimony or the opinions of so many experts and observers and specialists as he would like, he has procured a good deal, by the kindness of men whom he addressed, which he begs to acknowledge. He has opinions based upon wide observation and has the ripe experience of men who have managed prisons for years. These he regards as the most instructive, most suggestive and valuable that can be cited.

In order to pursue this inquiry the Superintendent formulated the following interrogatories, which were widely sent to men whom he thought would give him assistance by their replies :

STATE OF NEW YORK:

OFFICE OF THE SUPERINTENDENT OF STATE PRISONS, }
 ALBANY, *August 19, 1884.* }

To

DEAR SIR — Will you have the kindness to give me your views upon some questions which seem to be of special importance in the solution of problems which are presented in dealing with crime and with the criminal classes:

1. What are the prime causes of the crimes committed in your State which require penal punishment? Ans.

2. How far, and by what means can these crime causes be abated or removed? Ans.

3. Especially will you give me all statistics and facts which you can conveniently command, which show, or tend to show, these primary causes of crime, their relative importance and effects? Ans.

4. Will you also state what agencies you regard as most useful and effective in reforming convicts while they are in prison? Ans.

5. Will you give the reasons and, so far as practicable, the statistics and facts, upon which you base your judgment as to such reformatory measures? Ans.

6. What are the needs of the penal system in your State in order to give it greater efficiency and more beneficial results to the State? Ans.

A prompt reply will be appreciated.

Yours very respectfully,

ISAAC V. BAKER, Jr.,

Superintendent of State Prisons.

WHAT SUPREME COURT JUDGES SAY.

Of all replies which have been received, two classes appear to be of special value. One is from judges of the courts in New York, who have presided at the trials of criminals, some of them for many years; and who have seen that side of the question of crime and the criminal class. The other is from the wardens of prisons, who have come in contact personally and some of them for a long time with criminals. Each of these in a sense complements the other. In natural sequence the judges come first. From these, responses were made by nine individuals. Only the substance of them will be stated.

These opinions are based upon personal observation, extending in some cases over twenty years of judicial service. They say :

The causes of crime. — All name the use of intoxicating liquors as prominent ; next ranks idleness and indolence ; next ignorance ; next desire to get property and to make a show and living beyond one's means ; after these unbridled passions and disregard of authority cause crimes against person.

To abate and remove these causes of crime. — Not one relies upon the punishment fixed by law as effective. All place education, moral training, industrial activity, better family care in rearing children, a new social influence that will induce greater economy in living and industry in the plain business walks of life.

To reform convicts while in prison. — Humane treatment, in all respects to make their life comfortable and to open the future for them ; work that will be of practical use to them to earn a living after their discharge ; the *personal* influence of a strong, humane, practical warden or keeper who will impress on prisoners the lesson that crime does not *pay*, “indeed,” says one of the eldest judges, “whatever will promote *self-respect*.” Especially do these judges declare that there should be a separation of criminals in the prisons ; to save the young and the first offenders from contact with the professional and incorrigible criminals.

The needs of our penal system. — To teach every convict a trade, if he has none ; to select wardens and keepers in the prisons for their fitness only, and to retain such men permanently ; the constant and vigorous enforcement of good laws ; more *prompt* punishment, less facility for putting off or evading trial, fewer appeals, fewer technicalities, greater certainty of punishment of crime at less expense.

WHAT PRISON OFFICERS SAY.

These opinions are the result of experience in administering criminal law and to that extent of coming in contact with the criminal class. The concurrence of them gives great weight to the conclusions, and these conclusions are confirmed by the testimony of the

wardens of many prisons who made reply to the questions asked. There is such coincidence of judgment and observation in the replies made by prison officials that it does not seem so effective to summarize them as to select some from all and "let them speak for themselves." Two from all will suffice for this purpose, one from this State and the other from Michigan.

Mr. Henry L. Arnold, of Livingston county, is the State agent of discharged convicts. He habitually meets criminals while in prison and after their discharge from prison. He has a somewhat broader field for observation than a prison official. He makes the following reply:

"1. What are the prime causes of the crimes committed in your State which require penal punishment? Ans. 1st. Idleness — from disinclination to labor; 2d. Idleness — from non-employment; 3d. Intemperance — the result of idleness; 4th. Influence of receivers of and dealers in stolen goods; 5th. Intemperance — the result of misfortune.

"2. How far and by what means can these crime causes be abated or removed? Ans. In great part by enforced education and enforced employment upon the individual, and the abatement of the 'Mandelbaums' of the cities.

"3. Especially will you give me all statistics and facts which you can conveniently command which show, or tend to show, these primary causes of crime, their relative importance and effects? Ans. No statistics or facts, but conclusions derived from conversations with convicts.

"4. Will you also state what agencies you regard as most useful and effective in reforming convicts while they are in prison? Ans. Education; also, information of what is occurring in the world by means of proper newspapers; and employment, shielding the State from expense, affording the employer or contractor a fair profit and the convict as much as possible of his earnings, as a reward for efforts of industry and earnest application.

"5. Will you give the reasons and, so far as practicable, the statistics and facts upon which you base your judgment as to such reformatory measures? Ans. Men cannot be reformed by allowing them to go out of prison knowing less than when they came in; employment, profitable to the State and the employer, has much

better effect upon the mind and muscle of the convict than employment without profit. In effect, one is occupation, business; the other is servitude, the tread-mill.

“6. What are the needs of the penal system in your State in order to give it greater efficiency and more beneficial results to the State? Ans. Short terms for first offenses, and increased terms for repeated offenses.”

Very naturally and fitly this statement of experience may be emphasized by the response made by the warden of the Michigan State prison, viz.:

MICHIGAN STATE PRISON, }
JACKSON, Aug. 24, 1884. }

HON. ISAAC V. BAKER, Jr., *Supt. of State Prisons*:

DEAR SIR — I have your circular letter of inquiry of August 19, and in reply, beg briefly to answer the several interrogatories by numbers and without repeating, as follows:

1. Idleness in early youth and a *street education, both day and night, by both boys and girls*. Lack of steady employment when grown to mature years, because of having acquired no trade, business or profession, and because of having acquired all the vices which idleness brings in its train — drinking, gambling, “sporting,” prostitution included. Corrupted tastes and appetites will be fed, either honestly or dishonestly. An inordinate desire to get rich, by fair means or foul, and a too general disposition to ape the rich in expenditure and show, causing speculation, embezzlement and fraud in both public and private place.

2. By beginning at the root. Keep the children out of the streets both day and night. Create such a public opinion that the rich and well-to-do classes will train their children to do something and do it well; and by legal means clear the streets of city and village and all places of amusement and resort of idle vagrants. Make it a penal offense to sell or give intoxicating beverages, of whatever kind or name, to any minor, and make it the duty of officials, under penalty of dismissal from office, to enforce such penal laws. Street schools are more costly than the best primary, graded or high schools. Technical or industrial departments in schools of all grades may be made to educate the child in habits of industry. Burn and banish idleness in young and old, and crime will be frost-bitten before it blossoms and fruits.

3. The statistician has not yet harvested the crop of facts in detail. The acute observer must needs see them all around him. The streets, the highways, the juvenile reformatories, the common jails, the houses of correction are full of them. The State prisons are but the higher institutions and are fed, to a large extent, from these primaries.

4. Work! work!! work!!! keeping in view that the prisoner must work when he goes out of prison, and therefore he should be taught to work intelligently and skillfully, and to do something that he can find to do when he goes out. Isolation as far as possible from other convicts. Systematic instruction in the rudimentary branches of the primary schools. And last, not least, the contact with and instruction by a faithful, consistent chaplain; not a chaplain who regards his position as that of a sinecure or a political figurer or whipper-in, or even as an instructor in some special religious creed or faith.

5. Am short of statistics; the resons ought to be potent to all.

6. A better police system, that the idle and vagrant young may be kept under surveillance and in school; a divorce of all prisons and penal or reformatory institutions from politics; judges and prosecuting officers who better know the law and who will administer it without fear or favor, and with more uniformity; and a well-organized agency to look after discharged convicts. I should not omit the abolition of jails as places of punishment. Every person convicted of crime should work while under sentence and not idle away five, ten, twenty, thirty or ninety days in jail. The common jail is a nursery of crime.

It is possible that the above answers are not specific enough for your purposes; that they smack too much of theory and too little of statistics or so-called facts. I can't help that. I confess to a well-defined notion that true "criminal reform" must begin away back of the prison—must be a reform of the incipient criminal, and not of the confirmed criminals who find their way through reform schools and minor houses of correction to our State prisons. Reform must begin *in* the street school, or by the total abolition of the street school.

Yours fraternally,

E. B. POND,

Warden.

RECAPITULATION OF THE POINTS.

It does not appear to the Superintendent that more candid, intelligent and trustworthy counsel than is found in this series of statements can be obtained. The statistics, the reports of our prison officers, the concurrent opinion of men of the largest experience in dealing practically with the criminal classes can be briefly and, perhaps, profitably recapitulated and generalized, to wit :

1. Constant labor is a fundamental rule in a well-founded prison system.

2. Labor in prisons must be productive or useful in order to be reformatory.

3. Moderate competition of prison labor with free labor is inevitable, but the force of such competition is not significant.

4. Competition will be reduced to the minimum by the best prison system possible, because it will reform and lessen the criminal class and diminish the prison population and its production.

5. The greater portion of the prison convicts is below thirty years in age and is susceptible to humane reformatory influences, wisely adapted to their condition, which are instruction of the mind, in morals and in industry.

6. The progressive success of the present system in this State proves that it is sound in its methods and right in its tendencies.

7. A new system must embrace the essential features of the present, excepting alone the mode in which labor shall be employed.

8. The welfare and the reform of convicts and justice to the tax-paying citizens of the State both demand that the prisoners be kept at work at productive and remunerative labor.

9. Proper regard for the interests of different classes of manufactures laborers will require a diversity of occupations in the prisons, so that competition shall not bear unduly on any single class.

10. To give the widest scope and the highest efficiency to reform in prison administration, each convict whose term will permit should be taught a useful trade or occupation, and should be well trained to industrious pursuit of it in prison, so that he shall be fitted to live honestly after his discharge.

Just so far as any system ignores, leaps over, or denies these limitations, just so far will it fail in its operation. This can be predicated and predicted with absolute certainty.

CHANGES IN THE PRISONS.

Two acts have been done by the Superintendent during the last year which should be stated. Both of them are in the line of developing and completing the agencies in prison which shall make stronger and better men of the prisoners. At an early date during the year, the Superintendent directed the officers in charge of the several prisons to open schools for the convicts who are illiterate, to teach them the rudiments of our common school education. These instructions were kindly received and have been faithfully carried out by the officials, who report the conspicuous success of the schools.

THE NIGHT SCHOOLS.

At Sing Sing prison the school was opened January 2, 1884, with eighty-three scholars. Since that time eighty-six others have been added or have taken the places of the original scholars, so that 169 prisoners in Sing Sing have been taught during the year. These men or youths have been taught to read and write, to add, subtract, multiply and divide. Two teachers, both of them convicts who were teachers before sentence, have taught the classes. The school is divided into two classes, giving each of them three nights per week. The session of the school is two hours.

The warden reports that the sessions of the school have invariably been well attended and the scholars have been orderly, well disposed and anxious to learn. None of them could read and write. When the first scholars could read and write fairly and could add,

subtract, multiply and divide they stepped out, in order to give room for others. "I find," says the warden, "that most of them continue their studies in their cells." Further, he adds, "the school should never be discontinued, but a school-room should be built and fitted up."

At Auburn prison the school opened January 22, 1884. It is taught by a young man who is not a convict, as there was no competent teacher among the prisoners. The average attendance is eighty. It does not increase, because the commitments of illiterate are offset by discharges.

The chaplain reports that the school is working well. The improvement of these convict prisoners is wonderful, and the pride which they feel on being able to read and to write a letter to their friends is very gratifying. Is not this a "new birth," for such men? Some of them have written the first letter in their lives from a prison cell. To the industries of the prisons may be added another, namely, the making of men.

In Clinton prison, the warden did not deem it expedient to open the night school in a common school-room, where the convict scholars could congregate, on account of the peculiar character of the prisoners. Teaching in the cells was therefore tried, but did not prove satisfactory. The same course as practiced in Sing Sing and Auburn prisons has now been adopted. Warden Fuller says they feel much encouragement in respect to results. The school will be a decided success when regularly organized.

RELIGIOUS WORSHIP IN PRISON.

In behalf of prisoners who are Catholics, application was made to the Superintendent to authorize, in the prisons, religious worship after the rites and ordinances of their faith and by Catholic clergy. The right of free religious belief and worship is expressly declared in the Constitution, and the Superintendent does not understand that this personal constitutional right is suspended or abrogated by sentence to imprisonment for crime. The doctrine that such right

continues was very ably maintained by Henry R. Selden, who was eminent alike for his purity and patriotism as a citizen, and his attainments as a jurist. Besides, the Superintendent, upon investigation, found that as early as 1873, Dr. Wines, than whom our country has furnished no more eminent and trustworthy authority in all matters of prison administration and reform, touched this very subject in a report which he made to the National Government, which he officially represented in the International Penitentiary Congress. Dr. Wines reported that in nearly every leading European nation, chaplains for all prisons and for all religions are provided. He names Austria, Belgium, France, Baden, Prussia, Saxony, Wurtemberg, Netherlands, Russia, England and Ireland; and this freedom and religious instruction have been found to be salutary. In this State, the plan has worked well in penal institutions where it has been adopted. As there was a considerable number of Catholic convicts in the prisons (approximating 1,400), the Superintendent had the confident hope and expectation that Catholic worship by Catholic clergy, for the convicts of that faith, would be helpful in the discipline of the prison, and in augmenting the moral forces for the reformation of the prisoners.

The Superintendent, therefore, made an order for holding Catholic services in the prisons on Sundays. At present, Protestant and Catholic service is held in the morning regularly.

THE ASYLUM FOR INSANE CRIMINALS.

The report of Dr. MacDonald, Superintendent of the Asylum for Insane Criminals, possesses special interest in some important features. The buildings and appurtenances of the asylum have been put in better shape. The treatment is working out most favorable results. The particular feature which most deserves attention is the total rejection and disuse of the "restraint" system in the care and treatment of the "bad" insane patients. So important does the change seem to be, that the Superintendent deems it useful to quote from Dr. MacDonald's report, as follows, viz.: "It is also a source of

gratification (aside from the suicide above referred to), that no untoward injury or accident has occurred. No patient has been subjected to mechanical restraint of any form, while instances of seclusion, or the use of narcotic drugs as substitute for restraint, have been of rare occurrence; the daily average amount of seclusion for the year having been *but a trifle over one-quarter of one per cent of the average daily population*, as against one-half of one per cent for the preceding year. In fact, there have been continuous periods of nearly three two months, during which not a single instance of seclusion has occurred.

Tendencies to violence on the part of patients have greatly diminished since the total and final abolition of mechanical restraint, two and a half years ago, while what was known as the "refractory" ward under the system of chains, shackles, handcuffs, camisoles, wristlets and crib-beds formerly in vogue here, and which subsequently under the milder forms of these restraint, then deemed necessary, was called the "disturbed" ward, has gradually changed in character until now it may justly be classified as a "quiet" ward, although still occupied by our "worst" and most troublesome cases.

It would seem that the question of mechanical restraint in the treatment of the insane, regarding the propriety of which there has been so much discussion and even bitter controversy, is rapidly settling itself, and that its disuse may be predicted in the near future, in every well-regulated hospital for the insane. In this asylum we no longer even think of using it. In fact, a majority of our present corps of attendants have but little idea of its mechanism, and would be at a loss to know how to apply it were it placed in their hands for that purpose. In the light of such experience, candor compels the admission that, whereas I formerly thought mechanical restraint almost a *sine qua non* in the treatment of a certain class of cases and so advocated, I now not only regard it as unnecessary, but sincerely believe that such cases may be managed far better and easier without it."

SOME THINGS DEMANDED.

The Legislature should make appropriations without delay sufficient to put the prison libraries in good shape and to make additions to them. The libraries are much used ; the use of them is increasing, and if they shall be improved, still more use will be made of them. The State cannot make a more profitable investment — one that will pay more per cent income in the prisons than to meet the full requirements of these libraries. Their condition and their needs are pointedly set forth by the prison officials.

Warden Lanehart said in his report last year: “I would respectfully ask you to urge upon the Legislature for an appropriation of \$1,000 for the library of this prison. No reasonable amount can be more properly expended, or do more good than a well-selected library.”

Chaplain Edgerton reports the Sing Sing library in fair condition. The books, especially fiction, travel, adventures and histories are in constant demand.

Chaplain McIlwaine reports the Clinton library *not* in good condition ; the books are unsuitable ; much of the religious literature is not adapted to the uses of the prison population.

Chaplain Searls reports that the Auburn library is insufficient for cell reading and ought to be enlarged.

The warden of Sing Sing declares that the night school in that prison “should never be discontinued, but that a school-room should be built and fitted up for the school.” The Superintendent cordially approves the recommendation. Profitable investment in prison management lies in promoting and cultivating agencies for reform of the prisoners. The pithy and wise thought of the Swedish reformer is brought to mind, namely: “We Swedes are not rich enough to let a child grow up in ignorance, misery and crime, to become afterward a scourge to society and a disgrace to humanity.”

The instruction of the illiterate creates a new demand for elementary reading, which should be judiciously supplied. New works,

especially in biography, travel and well chosen current periodical publications, would act like stimulants on these newly-awakened minds to carry on their education.

The population of the asylum for insane criminals is rapidly increasing, and it is already overcrowded. Provision should be made for additional room. The danger of putting two patients in one room is obvious. The amount required is small compared with the advantages to be derived therefrom.

A larger appropriation should be made for the aid of discharged convicts. These are hard times in which to send men out into the world from prison. Free labor finds employment with so much difficulty that the embarrassments of men discharged from prisons are extraordinary. By reason of the earnings of the prisons in money and by the good behavior of the convicts the full demand for reasonable assistance should be promptly met by the State.

In a new system provision should be made for credits to prisoners for good conduct, for industry, for improvement, payable upon their discharge from prison.

Measures should be taken to provide for a classification of prisoners, to separate the hardened, professional and incorrigible from the young the first offenders, and those whose moral condition promises reform under the molding hand of the prison officers.

Attention is called to the interesting historical sketches of each of the prisons and the asylum for insane criminals in the reports of the wardens and medical superintendent.

SING SING.

This prison has steadily improved from year to year in its labor account as well as in other essential and important features, the surplus of earnings over expenses for care and maintenance being \$63,214.22 — the best financial exhibit in its history; last year the surplus was \$54,018.75. The average population for the year is 1,522. The number in prison September 30, 1884, 1,539. Fourteen thousand dollars has been expended in repairs of buildings, roads, bridges, drains and in the purchase of bath-tubs, machinery and

tools. The bathing arrangements at this prison are complete; no penal institution in this country has more perfect. The convicts are employed in the manufacture of stoves, boots and shoes, and in laundry. The average number on contract during the year is 1,262; on State work, 259.

AUBURN.

The population in this prison has been reduced during the year from 933 to 843; the discharges exceeding the commitments. The expenditures for maintenance and support in consequence exceed the earnings, and a deficiency of \$691.69 is the result. This, however, under the circumstances, cannot be considered an unfavorable exhibit. Messrs. Dunn, Barber & Co., who employ 125 men in manufacturing boots and shoes, gave three months' notice, on July 8, of their intention to abandon their contract. This will leave the men that they employed idle after October 8, 1884, unless employed on State account.

Four thousand three hundred and seventy-five dollars have been expended during the year in repairs of buildings, grounds, etc.

The convicts are employed in the manufacture of boots and shoes, hollow-ware, axles, horse collars and harness hames.

The average number on contract during the year is 690, and on State work, 147.

CLINTON.

Clinton prison shows a deficiency for the year of \$51,864.56. The average population is 522. Average number on contract, 400. The entire force of this prison at the expiration of the fiscal year were employed by the New York State Clothing Company in the manufacture of clothing. The last Legislature appropriated \$20,000 for the erection of a wall along a portion of the bounds of the inclosure of this prison, also \$12,000 for the erection of a building, 150 feet long by forty-six feet wide, to be used for work-shop, store-rooms, etc. This work was let by contract to the lowest bidder, and the work is now in progress; 100 convicts have been transferred to this

prison from Sing Sing during the year. The amount expended for repairs, new roof on old prison, \$3,581.80.

STATE ASYLUM FOR INSANE CRIMINALS.

The expenses for maintenance and support of this institution during the past year are \$29,900. Total number of patients treated, 199 ; average daily population, 152. The number remaining in the asylum, September 30, 1884, was 154, of whom seven were women. The amount received from counties for the support of unconvicted patients, from the United States, for support of United States convicts, and from sale of refuse, \$8,959.05.

STATE AGENT FOR DISCHARGED CONVICTS.

The report of the agent shows the number of convicts conferred with and assisted during the year. The expenditures are limited to \$5,000, and for details of such expenditures, reference may be had to the report herewith transmitted.

For details of prison management, reference is made to the accompanying reports of the official of each prison.

Respectfully submitted,

ISAAC V. BAKER, Jr.,

Superintendent.

SING SING PRISON.

SING SING, *October 1, 1884.*

The Honorable I. V. BAKER, *Superintendent of State Prisons, Albany, N. Y.:*

SIR — In compliance with law and your instructions, I have the honor to submit my fifth annual report, relative to the affairs of this prison for the fiscal year ending September 30, 1884.

I transmit herewith reports of the clerk, chaplain and physician, covering the same time, and an inventory of all goods, materials and other property on hand at the close of the fiscal year.

The clerk's report is exhaustive and contains detailed statements of all financial matters of the institution, for the year just ended, and is to be considered as a part of my report.

All other statistical information will be found in the report of the chaplain and physician.

I will, therefore, give only the general balance sheet.

Agent and Warden of Sing Sing prison in account current with the State of New York, for cash received and expended for the use of said prison for the year ending September 30, 1884:

DR.

To cash on hand October 1, 1883	\$172 36
To Treasurer's drafts for maintenance.....	176,116 59
Received from all other sources.....	238,179 56
	<hr/>
Total.....	\$414,468 51
	<hr/> <hr/>

CR.

By total expenditures, maintenance.....	\$176,071 12
By deposits to credit Treasurer State of New York..	238,179 56
By balance on hand September 30, 1884.....	217 83
	<hr/>
Total.....	\$414,468 51
	<hr/> <hr/>

Total expenditures for the support of Sing Sing prison during the year ending September 30, 1884.	\$176,071 12
Total earnings for same period, convict labor, miscellaneous earnings, etc.....	239,285 34
	<hr/>
Showing for the fiscal year a net profit of.....	\$63,214 22
	<hr/> <hr/>

This shows a larger profit than the previous year, although that was larger than any year in the history of the prison.

The earnings are about \$2,000 more and the expenditures are \$7,000 less.

Flour and vegetables were very cheap, and while the variety and quality of food served to the prisoners were better than the previous year, it cost less.

I give below a week's bill of fare of dinners taken from the books of the kitchen-keeper, and which are a fair sample of the dinners for the whole year, except as they are varied by the price of vegetables in the different seasons.

In Prison, 1592. Monday, September 22, 1884.

1,000 pounds corned beef, at 6 c.....	\$60 00
400 heads of cabbage, at 3 c.....	12 00
7 barrels potatoes, at \$1.10.....	7 70
58 loaves bread, at 20 c.....	11 60
8 gallons vinegar, at 12 c.....	96
5 gallons molasses, at 25 c.....	1 25
12 pounds coffee, at 10 c.....	1 20
	<hr/>
	\$94 71
	<hr/>

In Prison, 1541. Tuesday, September 23, 1884.

1,200 pounds fresh beef, at $7\frac{3}{4}$ c.....	\$93 00
2,500 ears corn, at \$1 per 100.....	25 00
$7\frac{1}{2}$ barrels potatoes, at \$1.10.....	8 25
55 loaves bread, at 20 c.....	11 00
$\frac{1}{4}$ barrel flour, at \$4.50.....	1 12
12 pounds coffee, at 10 c.....	1 20
5 gallons molasses, at 25 c.....	1 25
	<hr/>
	\$140 82
	<hr/>

In Prison, 1538. Wednesday, September 24, 1884.

1,000 pounds shoulder, at $7\frac{3}{4}$ c.....	\$77 50
$7\frac{1}{2}$ bushels beans, at \$2.10.....	15 75
7 barrels potatoes, at \$1.10.....	8 25
$\frac{1}{4}$ barrel of flour, at \$4.50.....	1 12
62 loaves bread, at 20 c.....	12 40
12 pounds coffee, at 10 c.....	1 20
10 gallons vinegar, at 12 c.....	1 20
5 gallons molasses, at 25 c.....	1 25
	<hr/>
	\$118 67
	<hr/>

In Prison, 1539. Thursday, September 25, 1884.

1,200 pounds fresh beef, at $7\frac{3}{4}$ c.....	\$83 00
$7\frac{1}{2}$ barrels potatoes, at \$1.10.....	8 25
$2\frac{1}{2}$ barrels onions, at \$1.50.....	3 75
$\frac{1}{4}$ barrel flour, at \$4.50.....	1 12
72 loaves bread, at 20 c.....	14 40
12 pounds coffee, at 10 c.....	1 20
5 gallons molasses, at 25 c.....	1 25
	<hr/>
	\$122 97
	<hr/> <hr/>

In Prison, 1539. Friday, September 26, 1884.

320 pounds fish, at $4\frac{1}{2}$ c.....	\$14 40
$7\frac{1}{2}$ barrels potatoes, at \$1.10.....	8 25
110 quarts milk, at 5 c.....	5 50
95 loaves corn bread, at 18 c.....	17 10
30 loaves bread, at 20 c.....	6 00
$\frac{2}{4}$ barrel flour, at \$4.50.....	3 38
12 pounds coffee, at 10 c.....	1 20
8 gallons molasses, at 25 c.....	2 00
	<hr/>
	\$57 83
	<hr/> <hr/>

In Prison, 1539. Saturday, September 27, 1884.

1,200 pounds fresh beef, at $7\frac{3}{4}$ c.....	\$93 00
8 barrels potatoes, at \$1.10.....	8 80
5 barrels beets, at \$1.....	5 00
16 gallons vinegar, at 12 c.....	1 92
$\frac{1}{4}$ barrel flour, at \$4.50.....	1 12
62 loaves bread, at 20 c.....	12 40
12 pounds coffee, at 10 c.....	1 20
6 gallons molasses, at 25 c.....	1 50
	<hr/>
	\$124 94
	<hr/> <hr/>

In Prison, 1539. Sunday, September 28, 1884.

20 barrels green apples, at \$1.....	\$20 00
225 pounds sugar at 5 c.....	11 25
1,644 loaves sweet bread, at 3 c.....	49 32
12 pounds coffee, at 10 c.....	1 20
4 gallons molasses, at 25 c.....	1 00
	<hr/>
	\$82 77
	<hr/> <hr/>

NOTE.—Flour issued for thickening gravy. Molasses is given in place of rations returned, every man having the privilege of exchanging his ration for molasses.

Fourteen thousand dollars have been expended in repairs of buildings, roads, bridges, drains and bath-tubs, and in the purchase of machinery and tools.

The bath-rooms have now been in use for some time. They contain fifty-six tubs and are supplied with hot and cold water. Three hundred men can now bathe every afternoon, after work is finished, and every man in the prison is required to bathe once a week, unless excused by the physician. While we use the bath-rooms, they are not yet completed; the walls need repair and the ceilings must be entirely new. This will soon be done.

SCHOOL.

In compliance with your instructions, an evening school was established here in January last. We commenced with eighty-three pupils. They have invariably been orderly, well-disposed and anxious to learn. Those who could not read and write were selected. As soon as they could read well in the Second Reader, write fairly, and add, subtract, multiply and divide, others took their places. I find most of them continue their studies in their cells. Since the school was started they are much more quiet and orderly in their cells. The teachers are two convicts, who were practical teachers before they came here.

I consider our school a great success, and it should never be discontinued, but on the contrary, a school-room should be built and fitted up.

We, at present, use the chapel, which is not convenient. I trust you will bring this subject before the Legislature.

DISCIPLINE.

The discipline of the prison is in the highest and best sense satisfactory. Punishments are rare and not severe; we have none who are malcontent or incorrigible, so far as discipline is concerned. But eight convicts have been locked in cell for punishment during the whole year.

I can say, what I think has never been the fact before in this prison, and which is very rarely the fact in any prison, that with an average population of 1,522, there has not been a single man who has proved incorrigible or given us any trouble for more than a day or two at a time.

Seven hundred and thirty-eight prisoners have been discharged during the year; only thirty-one of these have come back.

In the many improvements for the welfare and reformation of the men under my charge, I owe much to the capability and efficiency of the principal keeper. No change directed by yourself or by me, but what he has carried out promptly and cheerfully. He deals with the men firmly but kindly, and as a rule the men give him ready and cheerful obedience.

The accounts are so kept by the clerk, and reports so promptly and accurately made as to give me no trouble in looking after them. He relieves me of much work, thereby giving me more time to look after other and important matters.

The chaplain and physician have aided to the fullest extent in all measures of reform and improvement.

As our prison records were destroyed by fire several years ago, I have thought it would be well to give a short history of this prison, and had intended to do so, so that the principal facts, relative to the prison, might be published in your annual report, and thereby made a permanent record; but I have been unable to do so satisfactorily for want of time. The information can only be obtained with much trouble. I have, however, obtained a few facts, which I will give, hoping to be able to procure more for another report.

March 7, 1824, the Legislature passed an act providing for the appointment of commissioners to select a site for a penal institution to take the place of the one situated in New York city.

Under this act Stephen Allen, Samuel Miles Hopkins and George Tibbetts were appointed commissioners.

They selected Mt. Pleasant, now Sing Sing, as the site for the new prison. The reason for this selection was the strata of marble supposed to be merchantable and which they thought could be worked by convicts with profit to the State. They purchased for \$18,500, from John Fleetwood Marsh, the piece of land on which the prison is now situated, containing 114 acres 3 rods and 37 rods. Deed dated May 6, 1825.

On 14th of May, 1825, Capt. Elam Lynds, at that time principal keeper of Auburn prison, was directed to select 100 convicts and a sufficient number of keepers, and proceed to Sing Sing to commence the construction of a prison, capable of accommodating 600 prisoners, upon the plan of the Auburn prison, viz.: a separate cell for each prisoner. Ample power to purchase materials was conferred upon him. He arrived at Sing Sing on the morning of the 14th of May, 1825. Barracks for the accommodation of the men were immediately erected and they proceeded at once to work.

In May or June, 1828, 600 cells had been completed, and the convicts were removed from the New York city prison to this place. Before the roof was fully completed, it was found that 600 cells were not enough to accommodate all prisoners, consequently another tier of cells, 200 in number, were added. Since then two more tiers (400 cells) have been added.

In conclusion, I would express to you my obligations for your wise orders and kind suggestions; whatever of success I have had in the management of this institution, I feel that I owe to the wisdom and judgment of the Superintendent.

Yours respectfully,

A. A. BRUSH,
Agent and Warden.

CLERK'S REPORT

For the Fiscal Year ending September 30, 1884.

STATE OF NEW YORK :
CLERK'S OFFICE, SING SING PRISON, }
October 1, 1884.

TO HON. ISAAC V. BAKER, Jr., *Superintendent of State Prisons,*
Albany, N. Y.:

SIR — I have the honor to submit herewith the following annual report of the department under my charge in Sing Sing prison, for the fiscal year ending September 30, 1884.

Very respectfully,
A. L. BABCOCK,
Clerk.

FINANCIAL.

A. A. Brush, Agent and Warden of Sing Sing prison, in account current with the State of New York, for cash received and expended for the use of said prison, for the fiscal year ending September 30, 1884 :

DR.

To cash on hand October 1, 1884.....	\$172 36
To Treasurer's drafts for maintenance.....	176, 116 59
To received from all other sources.....	238, 179 56
Total.....	<u>\$414, 468 51</u>

CR.

By expenditures, viz. :	
Estimate No. 1. Salaries of officers.....	\$70, 352 76
Estimate No. 2. Rations.....	62, 151 90
Estimate No. 4. Stationery.....	1, 400 39
Estimate No. 5. Mileage and allowance.....	2, 889 24
Estimate No. 5. Convict deposits refunded.....	694 23
Estimate No. 6. Furniture.....	1, 561 79
Estimate No. 7. Drugs and medicines.....	1, 125 27
Estimate No. 8. Clothing and bedding.....	17, 108 46
Estimate No. 9. Buildings and repairs.....	188 23
Estimate No. 10. Fuel and lights.....	9, 679 37
Estimate No. 11. Hay, straw and feed.....	1, 085 78
Estimate No. 12. Miscellaneous.....	7, 833 71
Deposits to credit Treasurer State of New York....	238, 179 56
Cash on hand October 1, 1884.....	217 83
Total.....	<u>\$414, 468 51</u>

STATE OF NEW YORK, }
Westchester County, } ss. :

A. A. Brush, agent and warden, and A. L. Babcock, clerk, of Sing Sing prison, being duly sworn, say that the within account current is correct and true, according to the best of their knowledge and belief.

A. A. BRUSH, *Agent and Warden.*

A. L. BABCOCK, *Clerk.*

Subscribed and sworn before me, }
this 10th day of October, 1884. }

H. C. WESTLAKE, *Notary Public.*

TABLE No. 1.

ABSTRACT of the total earnings and cash receipts, and the total cash expenditures, with the average number of convicts per day and per month at the Sing Sing prison, from October 1, 1883, to September 30, 1884.

MONTHS.	Contract earnings.	Miscellaneous earnings.	Convict deposits.	Total earnings.	Deposits in bank.	Treasurer's draft.	Salaries of officers.	Expenditures for ordinary support.	Expenditures for building, repairs, etc.	Convict deposit refunded.	Total expenditures.	No. convicts on contract.	No. not on contract.	No. at close of month.	Monthly average.	Surplus.
1883.																
October	\$19,257 22	\$1,388 27	\$2 15	\$20,677 64	\$19,006 72	\$16,937 06	\$5,776 83	\$9,722 65	\$14 62	\$127 19	\$15,641 29	1,269	229	1,498	1,486	\$5,036 35
November	17,324 30	1,475 07	92 40	18,891 77	20,854 69	13,057 90	5,879 81	7,977 03	13 41	21 20	13,891 45	1,248	244	1,492	1,501	5,000 32
December	17,880 72	1,661 12	15 55	19,557 29	19,000 97	15,629 46	5,942 21	9,554 44	8 43	26 16	15,531 24	1,246	265	1,511	1,507	4,026 15
1884.																
January	18,883 52	1,132 54	98 07	30,134 13	19,131 33	15,254 33	5,838 17	10,188 38	21 03	50 11	16,097 69	1,226	232	1,458	1,472	4,036 44
February	17,585 76	665 20	48 05	18,299 01	19,596 77	14,566 31	5,889 92	8,329 38	10 84	68 26	14,298 40	1,246	247	1,493	1,474	4,000 61
March	18,770 52	964 23	28 69	19,763 44	18,578 68	15,338 62	5,858 80	8,841 37	36 17	8 07	14,744 41	1,281	260	1,541	1,518	5,019 63
April	18,985 72	1,038 76	59 11	20,083 59	19,868 39	14,775 39	5,951 14	9,066 55	6 55	59 23	15,083 47	1,276	263	1,539	1,538	5,000 12
May	19,810 90	1,407 78	14 35	21,233 03	20,407 85	15,470 87	5,869 78	9,243 67	9 53	58 54	15,181 52	1,289	277	1,566	1,552	6,051 51
June	18,312 12	1,434 79	31 17	19,778 08	21,276 86	13,820 17	5,905 80	7,814 90	10 87	45 30	13,776 87	1,296	256	1,552	1,545	6,001 21
July	19,049 66	1,248 80	111 09	20,379 55	19,642 01	14,391 12	5,710 41	8,545 06	19 27	78 43	14,353 17	1,275	274	1,549	1,552	6,026 38
August	18,846 38	1,502 15	47 11	20,365 64	20,598 92	14,308 32	5,753 62	8,553 70	19 28	23 84	14,350 44	1,262	287	1,549	1,551	6,015 20
September	18,722 05	1,350 23	39 76	20,122 07	20,216 37	11,764 01	5,976 27	6,908 77	18 23	127 90	13,121 17	1,260	279	1,536	1,564	7,000 90
Totals	\$223,428 90	\$15,268 94	\$387 50	\$239,285 34	\$238,179 56	\$176,116 59	\$70,352 76	\$104,835 90	\$188 23	\$694 23	\$176,071 12	15,174	3,113	18,287	18,260	\$63,214 22

Monthly average of convicts in prison, 1,522; monthly average of convicts on contract, 1,262.

NOTE.—“ Ordinary support ” is found by deducting from “ total expenditures ” the totals of “ salaries of officers,” “ expenditures for building and repairs ” and “ convict deposit refunded.”

TABLE No. 2.

STATEMENT of expenditures by estimates, showing the expense per convict per annum, per month and per diem, in Sing Sing prison, for the fiscal year ending September 30, 1884.

ESTIMATES.		Total amount of expenditures.	Average per convict per annum.	Average per convict per month.	Average per convict per diem.
Estimate No. 1.	Salaries of officers...	\$70,352 76	\$46 22 ⁴ / ₁₀	\$3 85 ² / ₁₀	12 ⁸ / ₁₀ cts.
Estimate No. 2.	Rations.....	62,151 90	40 83 ⁶ / ₁₀	3 40 ² / ₁₀	11 ⁴ / ₁₀
Estimate No. 4.	Stationery and postage.....	1,400 39	92	07 ⁷ / ₁₀	3 ³ / ₁₀
Estimate No. 5.	Mileage and allowance.....	2,889 24	1 89 ⁸ / ₁₀	15 ⁸ / ₁₀	1 ⁵ / ₁₀
Estimate No. 5.	Convict deposits refunded.....	694 23	45 ⁷ / ₁₀	03 ⁸ / ₁₀	1 ¹ / ₁₀
Estimate No. 6.	Furniture.....	1,561 79	1 02 ⁶ / ₁₀	08 ⁵ / ₁₀	3 ³ / ₁₀
Estimate No. 7.	Drugs and medicines.....	1,125 26	73 ⁹ / ₁₀	06 ² / ₁₀	2 ² / ₁₀
Estimate No. 8.	Clothing and bedding.....	*17,108 46	10 82	90 ² / ₁₀	03
Estimate No. 9.	Building and repairs.....	188 23	12 ⁴ / ₁₀	01	
Estimate No. 10.	Fuel and lights.....	9,679 37	6 35 ⁹ / ₁₀	53	01 ⁸ / ₁₀
Estimate No. 11.	Hay, straw and feed.....	1,085 78	71 ⁴ / ₁₀	06	2 ² / ₁₀
Estimate No. 12.	Miscellaneous	7,833 71	5 14 ⁷ / ₁₀	42 ⁹ / ₁₀	01 ⁴ / ₁₀
Total expenditures		\$176,071 12	\$115 26 ⁴ / ₁₀	\$9 60 ⁵ / ₁₀	32
“Ordinary support”		104,835 90	66 88	5 74	19 ² / ₁₀

* From Estimate No. 8 and ordinary support is deducted \$640, cost of officers' uniforms.

STATEMENT showing the existing contracts in Sing Sing prison, the number of convicts called for by each contract, the price per day, the time when they commenced and when they expire.

Name of contract.	NAME OF CONTRACTOR.	Number of convicts.	Price per day.	Commenced.	Expire.
Stove	Perry & Company.....	900	\$.56	Mar. 1, 1881	Feb. 28, 1887
Shoe	Bay State Shoe & Leather Co	300	.62	April 1, 1882	Aug. 31, 1887
Laundry..	Mahaney & Stern.....	130	.60	Dec. 1, 1881	Nov. 30, 1886

SPECIAL APPROPRIATION.

	Amount of appropriation.	Amount expended.	Amount on hand.
Female prison, alterations.	\$1,386 59	\$431 31	\$955 28

TABLE NO. 4.

Showing the amount earned each month at Sing Sing prison, under the various contracts for convict labor, during the fiscal year ending September 30, 1884.

MONTHS.	Stove contract.	Shoe contract.	Laundry contract.	Total earnings.
1883.				
October.....	\$12,580 40	\$4,669 22	\$2,037 60	\$19,287 22
November	11,285 68	4,191 82	1,846 80	17,324 30
December	11,601 52	4,340 00	1,939 20	17,880 72
1884.				
January.....	12,357 52	4,513 60	2,012 40	18,883 52
February	11,499 60	4,214 76	1,871 40	17,585 76
March	12,209 12	4,569 40	1,992 00	18,770 52
April.....	12,290 32	4,705 80	1,989 60	18,985 72
May.....	12,777 52	4,953 18	2,080 20	19,810 90
June	11,805 36	4,586 76	1,920 00	18,312 12
July	12,292 00	4,775 86	1,981 80	19,049 66
August	12,090 96	4,762 22	1,963 20	18,816 38
September.....	11,987 36	4,771 52	1,963 20	18,722 08
Totals	\$144,777 36	\$55,054 14	\$23,597 40	\$223,428 90

TABLE NO. 5.

STATEMENT showing the earnings, expenditures and surplus for each month at Sing Sing prison for the fiscal year ending September 30, 1884.

MONTHS.	No. of convicts.	Earnings.	Expenditures.	Surplus.
1883.				
October.....	1,486	\$20,677 64	\$15,641 29	\$5,036 35
November.....	1,501	18,891 77	13,891 45	5,000 32
December.....	1,507	19,557 39	15,531 24	4,026 15
1884.				
January.....	1,472	20,134 13	16,097 69	4,036 44
February.....	1,474	18,299 01	14,298 40	4,000 61
March.....	1,518	19,763 44	14,744 41	5,019 03
April.....	1,538	20,083 59	15,083 47	5,000 12
May.....	1,552	21,233 03	15,181 52	6,051 51
June.....	1,545	19,778 08	13,776 87	6,001 21
July.....	1,552	20,379 55	14,353 17	6,026 38
August.....	1,551	20,365 64	14,350 44	6,015 20
September.....	1,564	20,122 07	13,121 17	7,000 90
Totals.....	.....	\$239,285 34	\$176,071 12	\$63,214 22

Average number of convicts, 1,522.

TABLE NO. 6.

COMPARATIVE STATEMENT, showing the earnings and expenditures with deficiency and surplus by years, at Sing Sing prison, for the past fourteen years, ending September 30, 1884.

YEARS.	No. of convicts.	Earnings.	Expenditures.	Surplus.	Deficiencies.
1871.....	.....	\$144,864 73	\$267,426 03	.....	\$121,561 30
1872.....	.....	97,088 47	342,230 82	.....	245,142 35
1873.....	1,176	73,589 98	282,516 10	.....	208,926 21
1874.....	1,296	84,231 80	262,963 36	.....	178,731 56
1875.....	1,348	83,400 19	250,972 44	.....	167,572 25
1876.....	1,474	57,171 33	271,024 06	.....	213,852 73
1877.....	1,456	90,049 21	216,221 30	.....	126,176 09
1878.....	1,629	219,018 20	175,611 77	\$43,406 43	.....
1879.....	1,660	226,907 04	187,693 23	39,213 81	.....
1880.....	1,580	217,028 69	184,277 69	32,751 00	.....
1881.....	1,547	229,254 14	187,127 20	42,126 94	.....
1882.....	1,534	241,321 93	193,127 20	48,194 73	.....
1883.....	1,521	237,238 48	183,219 73	54,018 75	.....
1884.....	1,263	239,285 24	176,071 12	63,214 22	.....
Totals.....	.....	.....	.....	\$322,925 88	\$1,261,962 49

The total amount of expenditures over earnings for the seven years, 1871 to 1877, inclusive, was, \$1,261,962.49.

The total amount of earnings over expenditures for the seven years, 1878 to 1884, was, \$322,925.88.

TABLE No. 7.

COMPARATIVE STATEMENT showing profit of Sing Sing prison by months for fiscal years 1880, 1881, 1882, 1883, 1884.

MONTHS.	Profit, 1880.	Profit, 1881.	Profit, 1882.	Profit, 1883.	Profit, 1884.
1879.					
October.....	\$2,380 99	\$3,414 01	\$3,003 93	\$5,000 11	5,036 35
November.....	373 48	2,090 14	3,005 76	4,000 44	5,000 32
December.....	3,052 45	2,295 69	3,039 56	4,010 04	4,026 15
1880.					
January.....	2,154 32	2,008 99	3,044 73	4,000 43	4,036 44
February.....	2,741 53	2,029 73	3,007 87	2,456 41	4,000 61
March	3,753 00	4,034 04	3,011 60	4,000 16	5,019 03
April.....	3,137 59	4,065 48	4,411 14	4,003 80	5,000 12
May.....	3,376 86	4,054 20	5,010 88	4,063 16	6,051 51
June.....	2,807 16	4,019 48	4,019 32	5,027 96	6,000 21
July.....	3,149 59	4,029 63	4,617 33	5,010 65	6,026 38
August	3,080 12	4,083 95	6,000 52	6,008 15	6,015 20
September.....	2,744 10	6,001 60	6,022 09	6,437 44	7,000 90
Totals.....	\$32,751 00	\$42,126 94	\$48,194 73	\$54,018 75	\$63,214 22
Surplus for 1880.....					
Surplus for 1881.....	\$32,751 00	Surplus for 1884.....			\$63,214 22
Surplus for 1882.....	42,126 94				
Surplus for 1883.....	48,194 73	Total.....			\$240,305 64
Surplus for 1884.....	54,018 75				

General Statement and Averages.

The daily average of convicts confined in Sing Sing State prison during the fiscal year ending September 30, 1884.....	1, 521 $\frac{8}{10}$
<hr/>	
The total receipts for the support of Sing Sing State prison during the fiscal year ending September 30, 1884 (Treasurer's drafts).....	\$176, 071 12
The total earnings of Sing Sing State Prison for the fiscal year ending September 30, 1884.....	239, 285 34
<hr/>	
Showing an excess of earnings over receipts of	\$63, 214 22
<hr/>	
The total earnings of the prison for the year.....	\$239, 285 34
The average earnings per convict per annum.....	157 21 $\frac{8}{10}$
The average earnings per convict per month.....	13 10 $\frac{1}{10}$
The average earnings per convict per diem.....	43 $\frac{7}{10}$
<hr/>	
The average number of convicts on contract per diem	1, 262 $\frac{7}{10}$
The total amount of contract earnings for the year.	\$223, 428 90
The average contract earnings per convict per annum	177 04 $\frac{3}{10}$
The average contract earnings per convict per month	14 75 $\frac{3}{10}$
The average contract earnings per convict per diem	49 $\frac{2}{10}$
<hr/>	
The total amount of expenditures for the year*...	\$176, 071 12
The average expenditures per convict per annum..	115 26 $\frac{4}{10}$
The average expenditures per convict per month..	9 60 $\frac{5}{10}$
The average expenditures per convict per diem....	32
<hr/>	
The total amount of expenditures for "ordinary support" for the year (see Abstract No. 1) *...	\$104, 835 90
The average expenditures per convict per annum for "ordinary support".....	68 46
The average expenditures per convict per month for "ordinary support".....	5 70 $\frac{5}{10}$
The average expenditures per convict per diem for "ordinary support".....	19
<hr/>	

* From amount of total expenditures and expenditures for "ordinary support" is deducted \$640, cost of officers' uniform.

STATEMENT showing the number of convicts received and discharged in each month at Sing Sing Prison during the fiscal year ending September 30, 1884.

MONTHS.	Received.	Discharged.	Excess received.	Excess discharged.
1883.				
October.....	70	55	15	.....
November.....	56	62	....	6
December.....	72	53	19	.....
1884.				
January.....	57	110	....	53
February.....	85	50	35	.....
March.....	83	35	48	.....
April.....	60	62	....	2
May.....	61	34	27	.....
June.....	78	92	....	14
July.....	39	42	....	3
August.....	44	44	.	.....
September.....	89	99	....	10
Totals.....	794	738	144	88

Average number received per month, 65 ; average number discharged per month, 61.

STATEMENT showing the number of convicts in Sing Sing prison on the 30th day of September, 1883, also number received, discharged, transferred and died during the fiscal year ending September 30, 1884.

Number of convicts in prison September 30, 1883.....	1,483
Number of convicts received during the year.....	794
	<hr/>
	,2,277
Number of convicts discharged by commutation....	531
Number of convicts discharged by commutation (special).....	2
Number of convicts discharged by transfer to "Clinton prison".....	150
Number of convicts discharged by transfer to "Auburn prison".....	1
Number of convicts discharged by transfer to "State Asylum for Insane Criminals".....	13

Number of convicts discharged by order of court...	3
Number of convicts discharged by pardon	7
Number of convicts died.....	27
Number of convicts escaped.....	4
	<hr/>
	738
	<hr/>
Number of convicts remaining in prison September 30, 1884,	1, 539
	<hr/> <hr/>

Employed as follows, September 30, 1884.

Number of convicts employed on stove contract.....	833
Number of convicts employed on shoe contract.....	300
Number of convicts employed on laundry contract	127
Number of convicts employed on State work and waiters..	270
Number of convicts sick in hospital.....	9
	<hr/>
Total number in prison September 30, 1884	1, 539
	<hr/> <hr/>

HOSPITAL, SING SING PRISON, }
October 1, 1884. }

HON. I. V. BAKER, Jr., *Superintendent of State Prisons* :

SIR — I have the honor to submit the regular annual report of the medical department of Sing Sing prison for the fiscal year ending September 30, 1884.

Whole number of convicts in prison September 30, 1884 ..	1, 539
Whole number of convicts received during the year.....	794
Whole number of convicts discharged during the year.....	738
Transferred to Clinton prison	150
Transferred to Auburn prison	1
Transferred to Insane asylum at Auburn.....	13
Number of convicts who died during the year.	27
Daily average number in prison during the year.....	1, 522
Percentage of deaths on whole number in prison during the year	1.18
Percentage of deaths on average number in prison during the year.....	1.77
Number of convicts in good health when received.....	611
Number of convicts partially disabled when received.....	183
Whole number treated in hospital during the year.....	306
Monthly average number in hospital.....	25
Whole number of days lost in hospital.....	5, 033
Whole number of applications for treatment in dispensary.	22, 889
Whole number of prescriptions.....	21, 514
Whole number on contract September 30	1, 260
Whole number employed on State work September 30....	279

Whole number removed from contract to State work during the year.....	144
Whole number of days excused by physician.....	3, 154
Whole number of days excused for sickness.....	1, 431
Whole number of days excused for accidents.....	1, 723

The year just closed has been prosperous and the general outlook is encouraging in many respects.

The physical condition of the convicts, in the aggregate, is of the most satisfactory character. There is a manifest disposition among the men to submit quietly to the rules and regulations of the institution in regard to the performance of the labor required of them.

There is also an evident aspect of peaceable submission to the wholesome discipline of the institution, and an apparent effort on the part of the majority of the men to maintain, in a respectful manner, an orderly deportment. These are improvements of a satisfactory nature.

Four and a half years of close observation and study of the varied and ever varying phenomena of convict life lead me to the conclusion that there are reformatory influences which, when properly applied, are not entirely lost in an institution like this.

The science of moral ethics as applicable to our penal institutions has been largely discussed during the past few years in this country by a numerous class of intelligent, thoughtful and christian humanitarians.

The paramount object of the discussion is, doubtless, the partial, if not the thorough, reformation of the criminal classes. This object is in the highest degree creditable to those who are engaged in its accomplishment.

If, however, the means employed are only of a moral and religious character, their efforts will prove a failure. There are so many forces and agencies of evil within our prisons, unseen and unknown by the outside world, that external influences, even of the highest moral and religious character, will never reach them.

How then can our penal institutions be reformed?

In the first place the reformatory process must commence *within* the institutions and not outside of them.

The adoption of a judicious, uniform and properly conducted system of productive industry is of paramount importance and in the highest degree beneficial to the convict, both physically and morally. Without this the best directed efforts of the most conscientious humanitarian to reform the criminal would be as futile as the attempt to beat down an impregnable fortress with paper pellets.

In the application of such a system of labor, the convict should not be made to feel that he is looked upon as a slave or a brute, but rather that he is regarded as a man, with sensibilities and emotions like other men, but whose crimes have subjected him for a time to the performance of penal duty.

With these impressions operating upon him, and all his physical necessities properly attended to, the average convict is in a fair condition for reformation, under the laws of kindness, courtesy and encouragement on the part of those who have charge of him. But I must not indulge in further observations on this most vital subject at this time. I have only hinted at some of the most important considerations which enter into the process of criminal reformation.

During the past year the institution has been supplied with adequate facilities for bathing with hot and cold water, thus affording all the convicts ample opportunity for cleanliness, not heretofore available.

This is a highly important improvement, and with proper management, will contribute in no small degree to the physical benefit of the men.

The hall and corridors have probably never been in a better condition. All that a thorough system of painting could do has been done to render the place cheerful and pleasant. The cells are thoroughly cleaned daily and furnished with an ample supply of good blankets.

A large number of men are constantly employed in whitewashing.

In regard to the food furnished and served up in the mess-room, there is no lack either in quantity, variety or quality. No complaint is heard from any quarter, and there appears to be general satisfaction on the part of the men.

The discipline of the institution is, in all respects, adequate, effective and humane.

My special and constant attention is given to the physical welfare of all the men under my charge. There has been no lack of medical stores in the dispensary, and the hospital supplies have been abundant.

The annexed tables will furnish you further statistical information. I have the honor to remain

Very truly yours,
H. BARBER, M. D.,
Prison Physician.

TABLE No. 2.
Showing in-hospital report.

MONTHS.	No. in prison on first of month.	Received during the month.	Discharged dur- ing the month.	In prison last of the month.	In hospital on first of month.	Received during the month.	Discharged dur- ing the month.	No. treated each month.	No. of days lost by accidents each month.	No. of days lost by sickness each month.	Total No. days lost each m.th.	Died.
1883.												
October	1,481	70	55	1,498	9	9	4	18	50	293	343	2
November	1,505	56	62	1,492	12	10	9	22	103	313	416	1
December	1,496	72	53	1,511	12	16	8	28	127	381	508	2
1884.												
January.....	1,511	57	110	1,458	18	16	17	34	78	487	565	4
February.....	1,462	85	50	1,493	13	12	8	25	88	357	445	1
March.....	1,498	83	35	1,541	16	19	20	35	95	381	476	4
April.....	1,543	60	62	1,539	11	14	6	25	47	305	352	6
May.....	1,543	61	34	1,566	13	11	11	24	45	339	384	1
June.....	1,566	78	92	1,552	12	16	16	28	79	327	406	2
July.....	1,553	39	42	1,549	10	11	13	21	59	293	352	...
August.....	1,549	44	44	1,549	8	13	10	21	124	279	403	1
September.....	1,549	89	99	1,539	10	13	14	25	109	274	383	2
Total.....	18,256	794	738	18,287	144	162	136	306	1,004	4,029	5,033	26
Average	1,521	66	61	1,523	12	13	11	25	83	335	419	2

TABLE No. 3.
Showing number of deaths during the year.

NAME.	Color.	Age.	Habits.	Shop.	Crime.	Years.	Entered prison.	Entered hospital.	Date of death.	Disease.
1. Charles Robinson.....	White	24	Moderate.	State..	Grand larceny...	3	August 15, 1881	September 24, 1883	October 3, 1883	Pneumonia.
2. John Callahan.....	White	42	Moderate.	Stove..	Burg., 1st deg...	6	February 4, 1879	October 16, 1883	October 21, 1883	Paralysis.
3. George Jones.....	Black.	23	Moderate.	State..	Burg., 3d deg...	0	August 15, 1881	October 12, 1883	November 26, 1883	Phthisis.
4. Charles Gilmerius	White	42	Moderate.	State..	Robbery.....	1	April 21, 1882	August 27, 1883	December 2, 1883	Phthisis.
5. Albert Reed.....	White	21	Intemp....	State..	Grand larceny...	3	February 11, 1882	September 13, 1883	January 7, 1881	Phthisis.
6. Theodore Kline.....	White	47	Moderate.	State..	Rape	0	June 23, 1883	December 22, 1883	December 23, 1883	Pneumonia.
7. Charles Schaffer.....	White	43	Intemp....	State..	Forgery	5	August 13, 1881	December 1, 1883	January 5, 1881	Hydrothorax.
8. Thomas Young	White	39	Intemp....	State..	Murder, 2d deg.	Life.	December 17, 1883	December 17, 1883	January 9, 1881	Phthisis.
9. Daniel Mahoney.....	White	39	Moderate.	State..	Assault.....	0	October 27, 1883	January 11, 1881	January 14, 1881	Pneumonia.
10. Kirby Collins.....	White	42	Moderate.	State..	P. L. from per...	4	April 5, 1881	January 11, 1881	February 8, 1881	Rheumatic carditis.
11. Charles Meyer	White	27	Moderate.	Stove..	Grand larceny...	4	June 6, 1883	March 1, 1881	March 8, 1881	Pneumonia.
12. Thomas McKeever	White	38	Moderate.	Shoe ..	Manslaughter...	15	December 24, 1881	March 10, 1881	March 20, 1881	Nervous exhaustion.
13. John Spofford.....	White	21	Moderate.	State..	G. L., 1st deg...	0	November 9, 1883	March 20, 1881	March 22, 1881	Phthisis.
14. John Gilroy.....	White	26	Moderate.	State..	Mansl., 3d deg...	3	January 10, 1883	March 15, 1881	March 24, 1881	Typhoid pneumonia.
15. Charles G. Marston	White	20	Moderate.	State..	Grand larceny...	2	April 21, 1883	December 1, 1883	April 7, 1881	Enlargement of heart.
16. Lawrence McGuire.....	White	27	Moderate.	Shoe...	Burglary.. ..	2	February 26, 1883	March 27, 1881	April 18, 1881	Nervous exhaustion.
17. Charles Williams.....	White	21	Moderate.	State..	P. L. from per...	6	January 30, 1883	March 24, 1881	April 18, 1881	Paralysis.
18. Emil Hollender.....	White	54	Moderate.	State..	Mansl., 1st deg.	5	April 15, 1881	April 20, 1881	April 24, 1881	Paralysis.
19. John Ritz.....	White	30	Moderate.	State..	Attempt burg...	1	March 14, 1883	April 5, 1881	April 23, 1881	Phthisis.
20. Stephen C. Clark.....	White	38	Moderate.	Stove..	Burg., 3d deg...	3	February 8, 1883	April 9, 1881	April 26, 1881	Hemorrhage of bowels.
21. John Clifford	White	27	Moderate.	State..	Assault, 1st deg.	5	August 16, 1881	April 9, 1881	May 17, 1881	Phthisis.
22. James Dorsey.....	White	33	Moderate.	Shoe...	Burg., 3d deg...	2	September 5, 1883	*	June 6, 1881	Congestion of the lungs.
23. John McCusker.....	White	39	Moderate.	State..	Mansl., 2d deg...	4	November 13, 1881	May 13, 1881	June 15, 1881	Phthisis.
24. James Savage.....	White	25	Moderate.	State..	Burg., 3d deg...	2	March 11, 1883	April 23, 1881	June 15, 1881	Phthisis.
25. John Murphy	White	21	Moderate.	State..	G. L., 2d deg...	6	June 11, 1883	June 4, 1881	August 11, 1881	Phthisis.
26. Jacob Courtwright	Black.	42	Moderate.	Stove..	Felonious ass't.	6	July 6, 1881	September 2, 1881	September 4, 1881	Bilious colic.
27. Daniel Kiley.....	White	25	Moderate.	State..	Felonious ass't.	2	August 6, 1883	September 1, 1881	September 10, 1881	Dysentery.

*Post-mortem and inquest.

TABLE No. 4.
Transferred to Asylum for Insane Convicts, 1883, 1884.

NAME.	Color.	Age.	Nativity.	Crime.	Term.	Date of sentence.	Date of transfer.
1883.							
Charles Wilson.....	White.	26 years.	New York..	Burglary, 1st degree...	12 years.....	September 30, 1881.	October 8, 1883.
Louis Noller.....	White.	34 years.	Germany ..	Rape.....	12 years.....	September 17, 1881.	October 8, 1883.
James Sonner.....	White.	37 years.	New York..	Grand larceny, 2d deg..	3 years.....	September 12, 1883.	December 26, 1883.
1884.							
Thomas Murphy.....	White.	20 years.	S. America.	Robbery, 2d degree.....	5 years.....	January 8, 1883....	February 4, 1884.
John Powers....	White.	25 years.	New York..	Grand larceny, 2d deg..	2 years and 6 months.	February 7, 1884....	February 25, 1884.
Francis Henry.....	Black..	36 years.	Penn.	Received stolen goods..	5 years.....	December 1, 1880..	June 17, 1884.
Louis Lafforga.....	White.	44 years.	France	Grand larceny.....	5 years.....	October 16, 1882....	June 17, 1884.
Michael C. Gottlieb.....	White.	38 years.	Austria....	Received stolen goods..	1 year and 6 months..	March 25, 1884.....	June 26, 1884.
Thomas Hennessey.....	White.	24 years.	New York..	Assault to harm.....	8 years.....	March 13, 1882.....	June 26, 1884.
Michael Fitzpatrick.....	White.	24 years.	New York..	Grand larceny, 1st deg.	6 years and 6 months.	October 19, 1883....	July 10, 1884.
James Casey.....	White.	24 years.	New York..	Sodomy.	7 years and 6 months.	June 10, 1884.....	July 10, 1884.
Michael Rafter.....	White.	24 years.	Ireland	Fel. destruction prop'ty.	1 year and 6 months.	May 26, 1884.....	August 21, 1884.
Richard Unger.....	White.	20 years.	New York..	Burglary, 3d degree.....	3 years.....	February 21, 1883..	August 21, 1884.

STATE OF NEW YORK, } ss.:
Westchester County, }

I, Hiram Barber, being duly sworn, do depose and say that the foregoing report is true to the best of my knowledge and belief.

Subscribed and sworn to before me, }
this 10th day of October, 1884. }

A. L. BABCOCK, *Clerk.*

H. BARBER, M. D.,
Prison Physician.

REPORT OF CHAPLAIN.

Hon. I. V. BAKER, Jr., *Superintendent of State Prisons* :

MY DEAR SIR — I have the honor of submitting to you my report for the fiscal year ending September 30, 1884.

The religious work of my department has been developed to the utmost of my ability, not, I trust, without some success.

Our Sabbath services have been conducted as usual, while I have more than ever before endeavored to influence the men toward the good, by private personal appeal and counsel.

Perhaps it will not be out of place for me to present here, as concisely as possible, some considerations upon the subject of criminal reformation in the prison ; its possibility, and methods.

The fact that a man is a convict is, as a rule, the strongest and best evidence we can have that something is seriously wrong with him morally, and that he needs reforming. The field, therefore, is not uncertain in its character.

The proper methods by which to successfully cultivate this field have been, with more or less earnestness, sought for by reformers. That certain physical advancement has been made is beyond question, to the credit of the promoters, be it said ; but the practical point of the question has not thus far, to my knowledge, been developed in prison management.

It is a practical question.

The man is a practical criminal ; if he is reformed, it must be a practical reformation.

Being dishonest, he must be made honest, or there is absolutely no gain, either to him or society.

The method which is to successfully work this reformation has no less a task than to bring about a transformation — to make a *different* man of the man in hand.

Such a method must necessarily take intelligent cognizance of the cause why, of the wrongness of the man.

There must be a correct moral diagnosis before the prescription can successfully be made. The man is morally sick — what is the cause ?

If the cause lies in the previous environment of the man, the circumstances and conditions under which he has passed the former years of his life ; one would naturally say, that his removal from these conditions would, at least, largely tend to cure ; but the fact is, that such treatment is a total failure.

The seclusion of the prison, utilized simply as a method of vindication of law, actually works to the propagation of moral unsoundness. The man is punished for crime committed, but he goes back to freedom with the same or perhaps a worse trouble within him.

The truth I apprehend is something like this, that the circumstances and surroundings, while lying very close to the moral dif-

faculties of men, are after all not the causes, but rather the opportunities and means of wrong going.

A desire for the gratification of some unlawful passion or longing is always excited in a man before he commits a crime; consequently the money or jewels, or whatever he steals, are but affording the means for this gratification. The stealing makes him a lawbreaker, but he was, morally, as bad before the crime as after.

His having this abnormal desire fails, however, to solve the problem; there must be a reason for the desire, and to find this the man himself must be scrutinized.

In a remarkable work by Dr. Drummond applying the scientific method to the phenomena of human life, it is clearly demonstrated that the great laws of life in the vegetable and animal kingdoms extend themselves, as identical, into the moral and religious kingdoms.

From this basal fact is deduced the startling thought, that "man is no exception to the law called the principle of reversion to type;" under this law, which is universal, not only the tendency, but the fact, is to degeneration — to go back to the lowest form.

Neglect the plant which produces the choicest fruit, and inevitably it changes into something inferior.

Neglect a blooded horse and there is certain to come degeneration of stock. Let a man neglect himself for a few years and he will change into a worse and a lower man. Physical neglect will make a wild and bestial savage of him. Neglect of his mind will degenerate him into imbecility. If he neglects his conscience it will run into lawlessness and vice.

Conscience is the balance wheel of the moral life — it is the king of the moral faculties; disturb the balance, and disorder is certain; debauch the king, and the whole kingdom is demoralized. Neglect this power in the life and there is, of necessity, moral degeneration. Disuse weakens it in intelligence and authority, and the man changes into a moral savage.

I believe that men become criminal only when the conscience has lost its authority and left them, to a greater or less extent, moral wrecks. When a man reaches this condition, hesitation over a proposed crime is not from any chidings from within him, but from the question as to his ability to escape the hand of justice. It is simply the effort of a moral savage to satisfy himself regardless of methods. That this degeneration of the moral life and conscience obtains, in almost every degree of development, throughout the population of our prisons is not to be denied.

The testimony of criminals themselves, and I have questioned many, is in perfect harmony upon this point. Some could steal and rob without a sign of moral disquietude, but the thought of murder or arson awakened the strongest protests of conscience, and they could not go that far in crime.

Others were quick as to the baseness of theft or embezzlement, but could revel in unlawful passion at the expense of virtue or even life. Others heard no voice within them protesting at the perpe-

trating of the most revolting and brutal crimes. That this degeneration is the primal cause of crime I have no doubt.

As to the possibility of reformation there can be, under the light of Christian civilization and experience, but one opinion. It is possible for any and every man to reform — to be transformed. He whose conscience has degenerated until it has lost its sight and voice and strength may, under the law of growth, restore it until it stands with quick and open eyes to see, with clear and certain voice to warn, and perfect strength to hold and guide. If a man will not work for this restoration he cannot reform.

My views as to the method by which the State should endeavor to reform the prison population may be somewhat at variance with those of many who have studied this subject; but I believe them to be practical as well as practicable.

All the criminals in the prison will not be reformed. How to reform the greatest possible number is the question. In the first place I have not the least faith that it can be done directly or indirectly by any particular system of physical work. I can see no relation whatever between any given system and reformation, although I can see the relation of *work* to the question.

It is not the hands, nor the muscles, nor the stomach that are to be reformed.

A good physician, correct diet and rightly adjusted labor of any kind will keep these in order.

The *man* is to be reformed, but these agents cannot change the thoughts and desires of the heart. They cannot go into the secret place where rest the forces which determine character, where lies well nigh in ruins the conscience.

Reforming is transforming — making a bad thing good. It is the upbuilding of a manhood until the man is a *man*, with right thoughts and desires and an adequate balance. It is not a question of what labor, but how to direct any labor; not what form of management, but how to manage, that the criminal may be encouraged and strengthened to strive for the moral bettering of himself; not by better resolutions or purposes simply (for the prisons are filled with the wrecks of these) but by the beginning of a new life.

I do not believe there can be a true reformation in any man who has lost his character and debased his conscience, outside of an honest and sincere acceptance and appropriation of the principles of the gospel of Jesus Christ. "You cannot gather figs from thistles," neither can you draw good actions and correct living from depraved moral natures. There must be a renewal in the spirit of the mind. This is the basis upon which all successful reform efforts must be builded.

From this point of view it appears to me that two radical changes must be made before we can hope for any great success in this work.

First, there must be a system of thorough classification and separation among the criminals.

Second, there must be a genuine moral qualification demanded in every officer, keeper and guard for the position he may hold.

These two essentials obtaining in our prisons, the work for the regaining of forfeited characters would be inspiring. Society would cease to point the finger of scorn at every man coming out through the iron doors, and the State would gain good and honorable citizens.

I am glad to be able to say that from this prison men have gone out to become good and honorable citizens, but there might and should be many more.

I have not the space to discuss the questions which have to do with the obligations of society toward criminals before and after the prison life. That society has vital duties in the solution of this problem of reformation is conceded on every hand, and the discussions which have been and are being had furnish ground for strong hopes that the future will not be so barren, as the past, of successful efforts in this work.

Our night schools have been in operation continuously since January last with gratifying results. The total number who have received instruction in reading, spelling, writing and the rudiments of arithmetic is 169.

The library is in fair condition and the books, especially of fiction, travels and adventures and histories, are in constant demand.

The supervision of the prison correspondence receives a large share of my time. During the past year the number of letters

Received was.....	22, 505
Sent out was.....	14, 888

During the year I have gathered valuable statistical facts, which appear in their proper place in tabulated form.

We have, for the present year, made arrangements by which the statistical tables will be made still more complete.

Very truly yours,

S. W. EDGERTON,
Chaplain.

SING SING PRISON, 10th October, 1884.

STATISTICAL TABLES ACCOMPANYING CHAPLAIN'S REPORT FOR THE YEAR ENDING SEPTEMBER 30, 1884.

TABLE No. 1.

Showing number of convicts September 30, 1884.

White	1, 438
Colored	101
Total	1, 539

TABLE No. 2.

Showing counties where convicted.

Clinton	3	Rockland.....	7
Dutchess	20	Suffolk.....	15
Kings	7	Ulster	2
New York.....	1,382	Westchester	38
Orange	23		
Putnam.....	4		1,539
Queens	31		
Richmond	7		

TABLE No. 3.

*Showing crimes for which convicted.**Against the person.*

Assault to harm.....	151	Incest.....	3
Assault to kill	30	Manslaughter	41
Assault to ravish	6	Murder	44
Abortion	1	Rape and attempts.....	19
Abduction.....	1	Seduction	1
Attempt to poison	1		
Attempt to commit suicide	1		307
Bigamy	8		

Against property.

Arson and attempts	15	Larceny from the person	
Burglary and attempts ..	452	and attempts.....	58
Carrying burglarious tools	4	Receiving stolen goods..	9
False pretenses	2	Willful injury of property	1
Forgery and attempts ...	34	Stoning railroad cars	2
Grand larceny and at-			
tempts	526		1,103

Against person and property.

Perjury.	9	Assisting prisoners to es-	
Robbery and attempts...	116	cape	1
Blackmail	2		
Extortion	1		129

RECAPITULATION.

Against the person	307
Against property.....	1,103
Against person and property	129
	1,539

TABLE No. 4.

Showing terms of sentences.

1 year	18	9 years.....	3
1 1-4 years	1	9 1-2 years	3
1 1-2 years	39	10 years.....	93
1 2-3 years	4	10 1-4 years	1
2 years.....	190	10 1-2 years	1
2 1-4 years	4	12 years.....	8
2 1-3 years	2	12½ years.....	6
2 1-2 years	265	14½ years.....	1
3 years.....	128	15 years.....	31
3 1-2 years	110	15½ years.....	1
4 years.....	125	15⅝ years.....	1
4 1-6 years	1	18 years.....	1
4 1-2 years	64	18½ years.....	5
4 3-4 years	2	19 years.....	2
5 years.....	254	19½ years.....	1
5 1-2 years	9	20 years.....	20
6 years.....	16	20½ years....	1
7 years.....	17	Life	57
7 1-3 years	1		
7 1-2 years	30		<hr/> 1, 539 <hr/>
8 years.....	22		
8 1-2 years	1		

Average length of sentence, excluding life, 4 years 8 months and 6 days.

TABLE No. 5.

Showing previous occupation.

Actors	2	Brewer.....	1
Accountants	2	Bottlers.....	2
Army officer.....	1	Boilermakers	6
Agents.....	3	Bell hanger.....	1
Artificial flower makers..	2	Bill poster	1
Awning maker.....	1	Bootblacks.....	4
Broker.....	1	Brass stamper.....	1
Book-keepers.....	18	Bookbinders	5
Boxmakers.....	12	Burnisher.....	1
Brushmakers	5	Bottle dealer.....	1
Barbers.....	21	Brass turner.....	1
Bartenders	30	Brass finishers.....	8
Boatmen.....	14	Bronzer.....	1
Bakers	19	Broom-maker	1
Bricklayers	16	Brakeman	4
Butchers.....	26	Buttonmaker.....	1
Blacksmiths.....	9	Base-ball player	1

Bagsewer	1	Ice men	5
Contortionist	1	Iron worker	1
Clerks	43	Iron roller	1
Cooks	30	Inspector	1
Confectioners	2	Jewelers	5
Carpenters	36	Jewel case maker	1
Coremaker	1	Jockey	1
Chemist	1	Japanners	2
Coffin maker	1	Junkmen	6
Coopers	13	Janitor	1
Conductor	1	Kalsominer	1
Contractor	1	Lapidary	1
Carpet layers	2	Laborers	214
Canvassers	4	Longshoremen	8
Cigarmakers	22	Lather	1
Caulkers	2	Lead pencil maker	1
Color mixer	1	Liquor dealers	2
Compositors	2	Laundrymen	6
Correspondents	2	Locksmiths	3
Coachmen	5	Merchants	4
Cabinet makers	4	Machinists	15
Cutler	1	Moulders	15
Collectors	3	Metal turner	1
Chairmakers	4	Miller	1
Drivers	130	Masons	8
Druggists	5	Miner	1
Designer	1	Marble cutter	1
Engineers	6	Milkinen	2
Engravers	5	Mattressmaker	1
Electroplater	1	Messengers	7
Expressman	1	No occupation	10
Farmers	40	Nurses	3
Furrier	1	News dealers	5
Frame maker	1	Oystermen	10
Firemen	15	Organ grinder	1
Filemakers	2	Office boy	1
Florist	1	Oilers	2
Gardener	1	Ornamenter	1
Gilders	3	Operators	4
Gasfitters	5	Painters	51
Glazier	1	Potters	2
Glassblower	1	Plumbers	21
Grocers	2	Peddlers	34
Horse-shoers	1	Piano makers	4
Harness makers	3	Piano leg maker	1
Hostlers	12	Printers	46
Hatters	7	Physicians	2
Hodcarrier	1	Planer	1
Horse dealer	1	Porters	9

Pharmacist	1	Stocking knitter.....	1
Paper stainers.....	2	Spinners	2
Policemen.....	4	Sieve maker	1
Pipe turner.....	1	Shoe burnisher.	1
Polishers	2	Shoe fitters.....	4
Paper makers	2	Shoe lasters.....	4
Plasterers	7	Shoe cutters	3
Platers	2	Shoe heeler.....	1
Patternmaker	1	Shoe packers.....	2
Plate printers.....	2	Sewing machine operators,	2
Paper hanger	1	Saloon keepers.....	2
Paper cutters	2	Tinsmiths	13
Pilot	1	Tailors.....	18
Photographer.....	1	Teamsters	6
Quarryman	1	Tanner... ..	1
Retort maker	1	Tobacco stripper.....	1
Rail maker	1	Telegrapher.....	1
Roofers	5	Trunk maker	1
Rag sewers.....	2	Thieves	7
Rubber worker.....	1	Toy maker	1
School superintendent...	1	Typefounder	1
School teacher	1	Umbrella makers	5
Sailors	39	Upholsterers	4
Stone cutters	10	Varnishers	13
Student	1	Vocalist.....	1
Scene painter	1	Venders.....	14
Steam driller ..	1	Waiters	74
Strap dealer.....	1	Watch makers.....	3
Speculator.....	1	Weavers	4
Steam fitters.....	6	Watchmen	3
Salesmen.....	9	Whitewasher ..	1
Shoemakers.....	40	Wood carvers	2
Stone sawyer	1	Wood turner	1
Sawyers.....	2	Wood polisher.....	1
Spring-bed makers.....	3		
Stewards ...	3		
Sail makers.....	3		
			<hr/> 1,539 <hr/>

TABLE No. 6.

Showing age when convicted.

16 years.....	9	24 years.....	102
17 years.....	13	25 years.....	77
18 years.....	88	26 years.....	72
19 years.....	102	27 years.....	57
20 years.....	110	28 years.....	71
21 years.....	116	29 years.....	46
22 years....	128	30 years.....	52
23 years.....	100	31 years.....	28

32 years.....	43	49 years.....	6
33 years.....	31	50 years.....	7
34 years.....	27	51 years.....	2
35 years.....	35	52 years.....	6
36 years.....	20	53 years.....	2
37 years.....	18	54 years.....	3
38 years.....	23	55 years.....	2
39 years.....	22	56 years.....	1
40 years.....	17	57 years.....	1
41 years.....	8	58 years.....	2
42 years.....	17	59 years.....	2
43 years.....	15	60 years.....	3
44 years.....	13	62 years.....	1
45 years.....	15	63 years.....	1
46 years.....	7	64 years.....	1
47 years.....	8	72 years.....	1
48 years.....	8		
			<hr/>
			1, 539
			<hr/>

Average age, 27 $\frac{1}{6}$ years.

TABLE No. 7.

Showing nativity.

Natives.

Connecticut.....	14	New York.....	934
California.....	2	New Jersey.....	21
District of Columbia...	6	North Carolina.....	3
Delaware.....	5	New Hampshire.....	1
Florida.....	2	New Mexico.....	1
Georgia.....	4	Ohio.....	10
Illinois.....	12	Pennsylvania.....	36
Kentucky.....	5	Rhode Island.....	4
Louisiana.....	3	South Carolina.....	2
Maine.....	4	Tennessee.....	1
Massachusetts.....	37	Texas.....	1
Missouri.....	2	Virginia.....	14
Maryland.....	10	Vermont.....	2
Mississippi.....	1	Wisconsin.....	1
			<hr/>
			1, 138
			<hr/>

Foreigners.

Australia.....	1	Denmark.....	1
Belgium.....	2	England.....	48
Brazil.....	1	France.....	10
Canada.....	9	Germany.....	122
China.....	1	Hungary.....	1
Cuba.....	1	Holland.....	1

Italy.....	24	Sweden.....	1
Ireland.....	134	Spain.....	3
Norway.....	1	Scotland.....	10
Nova Scotia.....	2	Switzerland.....	5
Mexico.....	2	Turkey.....	1
Poland.....	9	West Indies.....	3
Russia.....	8		
			<hr/>
			401
			<hr/> <hr/>

RECAPITULATION.

Natives.....	1, 138
Foreigners.....	401
	<hr/>
	1, 539
	<hr/> <hr/>

TABLE No. 8.

Showing degree of education.

Read and write.....	1, 399
Read only.....	43
No education.....	97
	<hr/>
	1, 539
	<hr/> <hr/>

TABLE No. 9.

Showing habits of life.

Use of liquors.....	1,419
Do not use liquors.....	119
Use opium.....	1
	<hr/>
	1, 539
	<hr/> <hr/>
Use tobacco.....	1, 483
Do not use tobacco.....	56
	<hr/>
	1, 539
	<hr/> <hr/>

TABLE No. 10.

Showing number of convicts received and discharged during the year.

Received.....	794
Discharged.....	738
	<hr/> <hr/>

TABLE No. 11.

Showing number of convicts received during the year.

Employed when arrested.....	342
Idle when arrested.....	452
	<hr/>
	794
	<hr/> <hr/>

TABLE No. 12.

Showing previous commitments of convicts received during the year.

Having been in this prison once before.....	149
Having been in this prison twice before.....	52
Having been in this prison three times before.....	19
Having been in this prison four times before.....	2
Having been in this prison five times before.....	1
	<hr/>
Total number having been in this prison before.....	223
	<hr/> <hr/>

Having been in other State prisons or penitentiaries before once.....	160
Having been in other State prisons or penitentiaries before twice.....	27
Having been in other State prisons or penitentiaries before three times.....	7
Having been in other State prisons or penitentiaries before four times.....	2
Having been in other State prisons or penitentiaries before five times.....	1
Having been in other State prisons or penitentiaries before six times.....	1
Having been in other State prisons or penitentiaries before fifteen times.....	1
	<hr/>
Total number having been in other State prisons or peni- tentiaries before.....	199
	<hr/> <hr/>

Having been in jails or work-houses once before.....	68
Having been in jails or work-houses twice before.....	6
Having been in jails or work-houses before three times.....	3
Having been in jail or work-houses before five times.....	1
Having been in jails or work-houses before six times.....	1
	<hr/>
Total number having been in jail or work-houses before...	79
	<hr/> <hr/>

Having been in house of refuge once before.....	37
Having been in house of refuge twice before.....	1
Having been in house of refuge three times before.....	1
Having been in house of refuge four times before.....	1
<hr/>	
Total number having been in house of refuge before....	40
<hr/>	
Having been in Catholic Protectory before.. ..	15
<hr/>	
Having been in Elmira Reformatory before	14
<hr/>	

NOTE.— The aggregate of the several parts of this table is not to be taken as representing so many separate men, but as the number of commitments against the total number of men received.

Some men are received with from two to fifteen previous commitments, in different institutions, against them, and are, therefore, counted more than once.

RECAPITULATION.

Total number received during the year.....	794
<hr/>	
Number received during the year, having been in this prison before.....	223
<hr/>	
Number received during the year, having been in this or other prisons or penal institutions before	407
<hr/>	
Percentage of those having been in this prison before.....	28.08
<hr/>	
Percentage of those having been in this or other prisons or penal institutions before.....	51.26
<hr/>	

STATE OF NEW YORK, }
County of Westchester, } ss.

I, S. W. Edgerton, being duly sworn, do depose and say that the within report is true to the best of my knowledge and belief.

S. W. EDGERTON,
Chaplain Sing Sing Prison.

Subscribed and sworn to before me, }
this 10th day of October, 1884. }

A. L. BABCOCK, Clerk.

AUBURN PRISON.

AGENT AND WARDEN'S REPORT.

AUBURN PRISON, }
AUBURN, N. Y., *October 1, 1884.* }

Hon. ISAAC V. BAKER, JR., *Superintendent of State Prisons:*

DEAR SIR— I have the honor to transmit to you herewith the yearly statistics and tables of this prison, showing the receipts and expenditures in detail, together with other information relating to the administration of the prison for the year ending September 30, 1884.

Agent and Warden of Auburn prison in account current with the State of New York, for cash received and expended for the use of said prison, for the fiscal year ending September 30, 1884.

DR.

To cash on hand October 1, 1883.....	\$3, 179 22
To Treasurer's drafts for maintenance	113, 048 42
To receipts from all other sources.....	115, 408 09
Total	<u>\$231, 635 73</u>

CR.

By total expenditures for maintenance.....	\$115, 058 88
By deposits to credit Treasurer State of New York..	115, 408 09
By balance on hand September 30, 1884	1, 168 76
Total	<u>\$231, 635 73</u>

Total expenditures for the support of Auburn prison during the year ending September 30, 1884	\$115, 058 88
Total earnings for same period, convict labor, miscellaneous earnings, etc.....	114, 367 19
Showing a deficiency for the fiscal year of.....	<u>\$691 69</u>

A BRIEF HISTORY OF THE STATE PRISON AT AUBURN, N. Y.

As early as the year 1796, in the history of the State of New York, John Jay, the Governor of the Commonwealth, in his first annual message to the Legislature of the State recommended the immediate erection of establishments for the "detention and reformation of criminals."

Prior to that period all offenders against the laws of the State had been confined in county jails, which were in no way adapted to or equipped for the employment of criminals. A law was in that year enacted providing for the construction of two State prisons, one to be located at New York city and the other at Albany. The prison at New York, known as Newgate, was immediately built and opened for the reception of criminals, but for some reason, the other was abandoned. In less than ten years the capacity of Newgate was found quite inadequate, and it was probably due to that fact, that in year 1809 the number of pardons by the Governor equaled the number of commitments. When it became a necessity that the pardoning power be exercised in order to make room for a fresh batch of felons, the project of building an additional establishment for the "detention and reformation of criminals" was revived. Not, however, until the 12th of April, 1816, was any decisive action taken. On that day a commission was duly appointed, consisting of Hon. Elijah Miller, James Glover and Hon. John H. Beach, and they were invested with authority to build an additional prison at Auburn. The work of construction had progressed to such an extent that in the winter of 1817, fifty-three convicts were transferred from the jails in adjacent counties to the new prison, to aid in the work of construction. In the winter of 1818, eighty-seven more were transferred for the same purpose.

In that year the government of the prison was transferred from the Building Commissioners to a Board of Inspectors, appointed by the Legislature, consisting of Elijah Miller, John H. Beach, James Glover, Archy Kasson and George Casey. The prison was practically completed, in accordance with the original design, in 1823, but alterations and extensions have from time to time been made, so that it is not easy to determine when the Auburn prison was in fact a complete institution. It is still more difficult to state with exactness the cost of the institution, but after a careful examination of items of information scattered through a great number of reports of building commissioners, inspectors, etc., it is deemed quite safe to state the aggregate cost of the structure as it now is, at the sum of \$600,000.

Haste in the original plan of construction was a necessity in order to relieve the over-crowded jails of the State. The main building and south wing were finished in 1818, and contained sixty-one double cells and twenty-eight (28) apartments, holding from ten to twenty each, into which the convicts were placed as they arrived. Work-shops were erected in 1819-20, and the men were employed

at custom work. Women were also received here from the first and were confined indiscriminately in a large room in the south wing of the prison. These were the precise features of the system adopted at Newgate, and the same vicious results followed. The freshly-committed convict was sure to conform to the habits of thought and general demeanor and be controlled by the same impulses as his companions, who, older in crime and completely abandoned to viciousness, exercised a most harmful influence upon each new arrival. Insubordination was frequent; healthful discipline was absolutely out of the question. The prison authorities wholly despaired of attaining any success in reforming those committed to their care, and it was at last admitted by those most familiar with penitentiary science that our State prison system had not only wholly failed, but that it operated with alarming success "to increase, diffuse and extend the love of vice and to extend the knowledge of the secret devices of villainy." The greatest marvel about the matter was, that it seemed to have required twenty-five years of experience to make that discovery and announce that conclusion. The secret of the whole trouble was, the indiscriminate confinement of convicts, with from ten to twenty in an apartment, affording the best possible opportunity and supplying the greatest temptation, and those apartments thus became the veriest schools of vice and vicious influences.

To relieve against this the Legislature interposed its power and authorized such changes in the interior structure of the prisons as would make solitary confinement possible. The system was not original with our Legislature, but it was authorized in 1819, for the first time in this country at the Auburn prison. The north wing of the prison was then constructed on a plan which enabled the authorities to lock up the convicts at night in separate and solitary cells, between which there was no chance of communication, without the certainty of detection. So that, under the new system, prison life consisted of hard labor during the day, and separation and solitude during the night.

William Brittain was the first agent of the Auburn prison, and he was the designer of the arrangement of solitary cells now in use in the Auburn prison. He died in 1821, and he was succeeded by Captain Elam Lynds, a veteran of the war of 1812. Captain Lynds was a very strict disciplinarian, and in the enforcement of his system of discipline, he, whether justly or not, was often accused of great severity if not cruelty. He introduced the plan of marching the convicts to and from the shops in single file with the "lock step," a practice now observed in all the prisons in the State. Among other things, Captain Lynds substituted the practice of serving the convicts' meals in their cells for the previous custom of marching them to a common mess-room and giving them their rations there. This change created discontent among the men. At the common table, they often shared their food with each other, thus equalizing the wants of large and small eaters. They could not do this in the cell system, and

many suffered from hunger. All complaints made in consequence were answered with the arguments that the crimes of the convicts deserved the severest punishment, which it was not their keeper's business to mitigate.

The classification of criminals was a measure authorized in the spring of 1821, in imitation of the plan pursued by the authorities at the Philadelphia prison. The criminals were to be separated into three classes, with different degrees of punishment. The most dangerous and impenitent, those particularly who were serving out a second or third sentence, composed the first class, which was doomed to constant confinement, in silent and solitary cells, with no companion but their own thoughts and, if the keeper saw fit to allow it, their Bible. The second class was to be selected from the less incorrigible offenders, and alternately placed in solitary confinement, and allowed labor as a recreation. The third and most hopeful set was to be permitted to work out the sentence of hard labor by day, and seclusion by night, as had been previously the case with all. The second and third classes, however, were united as a third class. The separation of the first class from the body of the convicts took place on Christmas day of 1821. Eighty-three of the most hardened prisoners were committed to silence and solitude, in cells where they might neither see nor hear any but distant and chance occurrences, and where they were never visited except by the physician or chaplain, or by a convict bearing the stated meal. The punishment of these men was dreadful. In less than a year five of the eighty-three had died, one became an idiot, another, when his door was opened for some chance purpose, dashed himself headlong from the gallery into the fearful area below, and the rest, with haggard looks and despairing voices, begged pitifully to be taken back to the shops and set to work. This was suffering applied both to the body and mind.

The Assembly of the State, in 1824, appointed Samuel H. Hopkins, George Tibbits and Stephen Allen to consider the whole subject of punishments and prisons in this State, and report suitable amendments to the existing system for the consideration of the Legislature. The committee spent the ensuing summer in the task, during which it sent Captain Lynds off to New England to look up and study the prison systems prevailing in that region, and ascertain their advantages. The committee's report was laid before the Legislature in January, 1825. It contained several important suggestions. Foremost was a recommendation for the repeal of the solitary confinement law, based upon the injurious effects of such confinement on its subject. The committee exhibited the debilitating and lamentable results of the very first experiment in this direction, and argued that, though the punishment was indeed terrible, it failed to improve the morals of the criminal, and it was one of those unnecessary severities which disturbed the public mind. The expense of maintaining convicts in idleness was another important consideration. The committee, therefore, urged that every convict should be

employed at hard labor, for the sake of both economy and health. A less generous use of the pardoning power, general economy in administration, and the management of convict labor so as to make it productive were also suggested as needful and proper. A previous legislative committee had recommended a course directly opposite to the one now proposed, believing that the entire abandonment of labor as an engine of punishment was the only means of preventing crime. One of the present committee entertained the same view. But economy was desirable, and the Legislature accordingly sent the inmates of the solitary cells back to work. The famous Auburn system then began to receive a careful trial.

As the State could not with advantage, or without exciting the dangerous cry of "monopoly," manufacture on its own account, it was contrived that the labor of the convicts in the State prisons should be leased to contractors, who should pay therefor a reasonable and stated sum. The convicts at first performed custom work. In 1821, the first contract in the Auburn prison was let to Samuel C. Dunham, who took five men and began the manufacture of tools, in which he was associated the following year with Truman J. McMaster. The contract was afterward held by McMaster & Garrow. The cooper shop and a few men were let in 1824, to Allen Warden, the tailor shop to Stephen Van Anden, and the shoe shop to Erastus and Jabez Pease. The machine shop was leased by Worden & Wilkie, to supply their cotton factory in the village with machinery and repairs, and subsequently by Muir, Throop & Garrow with the same view. Brown & Guilford rented the hame shop in 1828, and Talmadge Cherry the cabinet shop in 1826. The introduction and department of the contract system was attended with considerable embarrassment. The increased discipline of the prison necessary to prevent convicts maliciously spoiling their work was distasteful to the public. But the competition between convict and free labor was still more so, and all who employed it lost popularity. The whole system of convict labor, therefore, fell into a disrepute, which lasted nearly twenty years. The agent of the prison was at times taxed to the uttermost to keep the convicts busy, and some of the contracts were taken by merchants of Auburn, only upon his personal solicitation, and then with great reluctance.

The government of the prison was placed, in 1818, in the hands of a local board of five inspectors, appointed by the Governor and Senate for two years, which, in turn, appointed all the other officers of the institution, and maintained a general supervision over its conduct and affairs. The officers, to the lowest, holding their positions independently of each other, were responsible directly to the board, and were exempt from interference in the fearless performance of their duties. The members of the board of inspectors, taken from the village at large, were selected as men in whom the public had the highest confidence, and on whom they could safely rely for the prevention of abuses. The agent and keeper was the chief executive in the management of the prison. He was allowed a deputy

and clerk. The other officers were the turnkeys or keepers, and guards. The agent reported annually to the board of inspectors the general statistics of the institution. The board transmitted a similar report to the Legislature, at every winter session. This form of government was in every respect satisfactory to the public and worked well. The failure of an attempt to change it, so as to subserve political ends, may be recorded as among the incidents of 1828.

Opposition to convict labor at the Auburn prison began with the origin of the institution amongst the mechanics of Auburn and other surrounding villages, and it is due to the truth of history of prison labor to observe that they did in some measure suffer by the competition which resulted. At the outset the competition was local, being confined to a small territory, and hence the injury, if injury it may be called, fell upon those mechanics who carried on their various industries within the small territory contiguous to the prison. But the clamor against convict labor became so general in all parts of the State, that the authorities gave heed to it. The State authorities, however, stoutly and with reason affirmed that the State could not, in justice to the tax payers, afford to sustain prisoners in idleness, and the mechanics with equal tenacity affirming that they could not withstand the competition. The controversy resulted in the passage of a resolution by the Legislature in 1835, directing the agent of the Auburn prison to report on the advisability of carrying on in the prison the manufacture of such articles as were then furnished to the United States exclusively by importation. Acting upon the report of the agent, the manufacture of silk alone was definitely authorized. It was not, however, attempted until 1841; at that time Henry Polhemus, being then agent, resolved to give the scheme a fair and thorough trial. The experiment continued for about four years, but proving to be not only unremunerative but disastrous in a financial sense to the State, it was abandoned.

By 1845, however, the necessity for any legislative protection had passed. The circumstances of the case were then materially changed. When the introduction of coerced labor to Auburn threw into the market the available services of several hundred additional hands, the population of the village was little more than a thousand. What would not have been perceived in a large city was a crushing blow to the laboring classes here. But during the lapse of twenty-five years, other tradesmen had entered the field, and the population of the county and State had expanded so largely, that the labor of the five hundred inmates of the penitentiary had lost its injurious influence. The mechanic interest had then adjusted itself to the situation, and for many years no longer ranged itself in opposition to the system of labor employed in Auburn prison.

By the new State Constitution of 1846, the control of the prisons of the State was intrusted to a board of three inspectors chosen by the people at the general election, possessing substantially the same powers as the board which they superseded.

The same labor system continued under the amended Constitution, and at intervals has provoked attack from various labor organizations in this and various other States of the Union. In 1876, the Constitution was again amended and the board of inspectors was superseded by a Superintendent of State Prisons, to be appointed by the Governor, by and with the advice and consent of the Senate, and possessing the same powers as was by law invested in the former board of inspectors.

He was empowered by the Laws of 1877 to let the labor of convicts by contract, or *to employ them in work by and for the account of the State, either or both in his discretion.*

Hon. Louis D. Pilsbury was appointed Superintendent of State Prisons by Governor Lucius Robinson on the 16th February, 1877, and held office until March, 1882, when Hon. I. V. Baker, Jr., the present incumbent, was appointed as his successor by Governor Cornell.

Soon after Mr. Pilsbury entered upon his term of office, application was made to him for a large number of convict laborers in the Sing Sing prison by a firm of stove manufacturers carrying on business in the city of Albany. That was an industry not theretofore carried on in the prisons of the State, at least to any considerable extent, and at this time was entered upon by the manufacturing firm aforesaid as a last resort to protect themselves against a formidable strike inaugurated and stoutly maintained in their establishment at Albany. A large number of men were employed and the industry was successfully carried on through Mr. Pilsbury's administration and continues with unabated success under the administration of Mr. Baker.

Reference is made to this particular industry at the Sing Sing prison for the sole purpose of illustrating how it often occurs that in applying a corrective to real or fancied evil incident to the labor interest of the country, the very evil complained of may be magnified ten-fold.

The employment of a large number of men at Sing Sing upon a contract for manufacturing stoves served to stimulate or revive the old clamor against contract labor in the prisons. The Legislature, heeding the appeals of the labor interest, adopted a resolution submitting the question to the electors of the State at the general election in 1882, in substance whether the system of "contract labor" in the prisons and penitentiaries of the State should be longer tolerated; of the vote cast upon that resolution a large majority was given in favor of the resolution and against the system of contract labor. The resolution, however, was advisory merely, and the Legislature at the succeeding session, in order to give effect to the public will as expressed in the resolution, enacted a law forbidding the employment of convicts upon contract. Several contracts at the Auburn prison were soon to expire, and some have since been terminated by notice given to the State authorities by the contractors. Several hundred men were soon out of employ, and have been

maintained in idleness, practically, to the present time. The result financially recalls periods in the history of our State prisons not pleasant for the tax payers to contemplate.

The act of the Legislature forbidding "contract labor" in the prisons left the Superintendent with authority to employ them upon State account, and upon State account only. He could not allow them to remain idle. The command of the law and the sentence of the court against all convicted felons was confinement and "hard labor," and failure to heed the law in that respect would, in all probability, be regarded as good cause for complaint against those who have the prisons in charge. In obedience to that command, and in compliance with the authority invested in the Superintendent by the act of 1877, preparations have been made for entering upon the business of manufacturing boots and shoes of the quality and style heretofore made in the prison by contractors. Of the wisdom of this step by the Superintendent there can be little, if any, doubt.

The men have been educated to the trade and have become expert in the use of the machinery employed in the business; there is already an established market for that class of work. The trade is taken up where the contractors left it, and the product will, in all probability, be readily disposed of. Whether it is wisdom for the State to engage in the business of manufacturing is a serious question, but the Superintendent has been left to choose between maintaining the prisoners in idleness or working the men upon State account. His management of the prisons up to the present time has been eminently successful, as well in a financial sense as in respect to disciplinary methods and results.

There has been no insubordination manifested on the part of the convicts during the past year. They have in the main quietly and orderly submitted to the discipline of the prison, and industriously performed the labor imposed upon them.

For the hearty co-operation and support of all the prison officers in maintaining order and discipline, I am under obligations. To the faithful manner in which each officer has discharged his duty, may be attributed our success which has marked the past year.

I respectfully refer you to the report of the chaplain for the moral condition, and to the physician's report for the sanitary condition of the inmates of the prison.

The yard-master and engineer has made a detailed report of the repairs and improvements, and the general condition of the prison.

In conclusion, permit me to thank you for the prompt support which I have at all times received at your hands in the discharge of my duty.

Yours respectfully,
J. S. LANEHART,
Agent and Warden.

CLERK'S REPORT.

CLERK'S OFFICE, AUBURN PRISON, }
 October 1, 1884. }

HON. ISAAC V. BAKER, Jr., *Superintendent of State Prisons* :

SIR — I have the honor to transmit herewith the annual statement, tables, etc., exhibiting the transactions of my department during the fiscal year ending September 30, 1884.

Very respectfully yours,

T. H. DAVIS, *Clerk*.

John S. Lanehart, Agent and Warden of the Auburn State prison, in account current with the State of New York, for cash received and expended for the general supplies of said prison during the year ending September 30, 1884.

DR.

Oct. 1, 1883.	To balance on hand	\$3, 179 22
Sept. 30, 1884.	To Treasurer's drafts for maintenance,	113, 048 42
	To convict labor	111, 716 59
	To miscellaneous earnings.....	1, 944 59
	To convicts' deposits	1, 746 91
		<hr/>
		\$231, 635 73
		<hr/>
Oct. 1, 1884.	To balance on hand	\$1, 168 76
		<hr/>

CR.

Sept. 30, 1884.	By expenditures, viz. :	
	Estimate No. 1. Salaries of officers,	\$54, 365 32
	Estimate No. 2. Rations.....	32, 864 10
	Estimate No. 3. Stock and materials.....	525 19
	Estimate No. 4. Printing and stationery	207 80
	Estimate No. 5. Convicts' traveling expenses	3, 173 75
	Estimate No. 5. Convicts' deposits refunded	2, 301 00
	Estimate No. 6. Furniture.....	80 75
	Estimate No. 7. Drugs and medicines.....	467 78
	Estimate No. 8. Clothing and bedding	10, 221 37
	Estimate No. 9. Building and repairs.....	591 40

Estimate No. 10. Fuel and lights..	\$5, 810 56
Estimate No. 11. Hay, grain, etc.,	192 97
Estimate No. 12. Miscellaneous...	4, 256 89
	<hr/>
	\$115, 058 88
Deposits to credit of Treasurer of the State of New York, viz.:	
in First Nat'l bank..	\$57, 202 74
in Nat'l Exch. bank,	58, 205 35
	<hr/>
	115, 408 09
Balance on hand	1, 168 76
	<hr/>
	\$231, 635 73
	<hr/> <hr/>

STATE OF NEW YORK, }
Cayuga County, } ss.:

John S. Lanehart, agent and warden, and Thomas H. Davis, clerk of the Auburn State prison, being sworn, say that the within account current is correct and true, according to the best of their knowledge and belief.

J. S. LANEHART, *Agent and Warden.*
T. H. DAVIS, *Clerk.*

Subscribed and sworn this 2d day }
of October, 1884, before me, }

D. B. McNEIL,
Notary Public, Cayuga County.

TABLE No. 1.

12 ABSTRACT of the total earnings and cash receipts, and the total cash expenditures, with the average number of convicts per day and per month, at the Auburn prison, from October 1, 1883, to September 30, 1884.

MONTHS.	Contract earnings.	Miscellaneous earnings.	Convict deposits.	Total earnings.	Deposits in bank.	Treasurer's drafts.	Salaries of officers.	Expenditures for ordinary support.	Expenditures for building and repairs.	Convict deposit refunded.	Total expenditures.	No of convicts on contract.	No. not on contract.	No. at close of month.	Monthly average.
1883.															
October	\$10,012 35	\$232 30	\$24 36	\$10,269 01	\$9,668 65	\$13,270 39	\$4,576 67	\$8,118 59	\$42 68	\$148 13	\$12,886 07	732	154	886	880
November.....	9,412 54	43 31	35 64	9,491 49	10,091 30	11,679 64	4,581 07	7,809 45	23 58	83 14	12,497 24	724	152	876	882
December.....	9,411 15	54 79	371 28	9,837 22	9,838 61	7,872 69	4,577 85	4,876 92	116 73	263 44	9,834 94	742	155	897	886
1884.															
January	10,152 67	157 60	33 00	10,343 27	9,601 75	9,857 87	4,584 06	4,897 00	319 12	69 82	9,870 00	720	152	872	885
February.....	9,127 72	39 86	44 56	9,212 14	10,237 09	9,714 90	4,599 77	4,890 51	22 65	43 60	9,556 53	708	156	864	864
March	9,407 69	41 23	369 51	9,818 43	9,538 46	8,849 96	4,589 86	4,371 27	58 18	317 40	9,336 71	700	152	852	857
April.....	9,242 65	25 22	15 77	9,283 64	9,448 68	9,695 81	4,545 49	4,613 65	8 46	28 18	9,195 78	687	148	835	842
May.....	9,332 32	173 91	52 00	9,558 23	9,468 56	8,970 76	4,454 39	4,167 31	.....	66 02	8,687 72	675	144	819	826
June	8,695 10	153 18	432 56	9,280 84	9,918 06	8,601 10	4,449 47	4,143 34	.....	220 09	8,812 90	678	144	822	827
July.....	8,886 67	522 56	85 54	9,494 77	9,303 20	8,988 02	4,483 81	4,471 14	.....	95 75	9,050 70	654	143	797	812
August.....	8,623 74	189 59	18 00	8,831 33	9,094 26	8,768 98	4,454 08	2,535 99	.....	33 38	7,023 45	636	137	773	786
September	8,371 09	311 04	264 69	8,946 82	9,199 47	6,778 30	4,468 80	2,905 99	.....	932 05	8,306 84	627	138	765	769
Totals.....	\$110,675 69	\$1,944 59	\$1,746 91	\$114,367 19	\$115,408 09	\$113,048 42	\$54,365 32	\$57,801 16	\$591 40	\$2,301 00	\$115,058 88	8,283	.....	.....	10,116

Monthly average of convicts in prison, 843; monthly average of convicts on contract, 690.

NOTE.—“ Ordinary support ” is found by deducting from “ total expenditures ” the totals of “ salaries of officers,” “ expenditures for building and repairs ” and “ convict deposit refunded.”

TABLE No. 2.

STATEMENT of expenditures by estimate, showing the expense per convict per annum, per month and per diem, in Auburn prison, for the fiscal year ending September 30, 1884.

ESTIMATES.		Total amount of expenditures.	Average per convict per annum.	Average per convict per month.	Average per convict per diem.
No.					Cents.
No. 1.	Salaries of officers.....	\$54,365 32	\$64 49	\$5 37	17 ⁹ / ₁₀
No. 2.	Rations	32,864 10	38 98	3 25	10 ⁸ / ₁₀
No. 3.	Stock and materials.....	525 19	62	05	2 ² / ₁₀
No. 4.	Printing and stationery.....	207 80	25	02	1 ¹ / ₂₀
No. 5.	Convicts' traveling expenses.....	3,173 75	3 76	31	1
No. 5.	Convicts' deposits refunded.....	2,301 00	2 73	23	8 ⁸ / ₁₀
No. 6.	Furniture	80 75	10	01	
No. 7.	Drugs and medicines.....	467 78	55	05	2 ² / ₁₀
No. 8.	Clothing and bedding.....	10,221 37	12 13	1 01	3 ⁴ / ₁₀
No. 9.	Building and repairs.....	591 40	70	06	2 ² / ₁₀
No. 10.	Fuel and lights.....	5,810 56	6 89	57	1 ⁹ / ₁₀
No. 11.	Hay, grain, etc.....	192 97	23	02	1 ¹ / ₂₀
No. 12.	Miscellaneous.....	4,256 89	5 05	42	1 ⁴ / ₁₀
Total expenditures.....		\$115,058 88	\$136 48	\$11 37	37 ⁹ / ₁₀
"Ordinary support"		\$57,801 16	\$68 57	\$5 71	19

TABLE NO. 3.

Showing the existing contracts in Auburn prison, number of convicts called for by each contract, the price per day, the time when they commenced and when they expire.

NAME OF CONTRACT.	Name of contractor.	Number of convicts.	Price per day.	Commenced.	Expires.
Axle	Sheldon & Co.....	{ 225	{ \$.50	Dec. 10, 1879	Feb. 28, 1885
		{ 40	{ .60		
Collar	Auburn Collar Co..	60	.63	Jan. 1, 1883	Apr. 30, 1888
Hame	Hayden & Boyd....	{ 100	{ .50	Oct. 1, 1880	Sept. 30, 1885
		{ Excess	{ .60		
Hollow-ware	Jones & Merritt....	{ 180	{ .50	Dec. 13, 1879	Dec. 31, 1884
		{ 30	{ .60		
Shoe	Dunn, Barber & Co.	100	.60	Jan. 5, 1882	Oct. 8, 1884

NOTE.—Dunn, Barber & Company gave notice July 8, 1884, according to an optional provision of their contract, of their intention to cancel the same October 8, 1884, otherwise it would terminate January 4, 1887.

TABLE No. 4.

Showing the amount earned each month at Auburn prison, under the various contracts for convict labor, during the fiscal year ending September 30, 1884.

CONTRACT.	1883. October.	1883. Nov.	1883. Dec.	1884. January.	1884. February	1884. March.	1884. April.	1884. May.	1884. June.	1884. July.	1884. August.	1884. Sept.	Total.
Axle	\$3,820 20	\$3,559 80	\$3,580 80	\$3,839 40	\$3,569 10	\$3,646 20	\$3,551 40	\$3,509 10	\$3,260 10	\$3,353 70	\$3,252 00	\$3,174 90	\$42,116 70
Collar	744 35	732 69	756 00	843 57	762 62	784 04	762 30	756 32	721 35	753 17	736 79	727 34	9,080 54
Hame	1,275 75	1,164 50	1,173 00	1,262 75	956 25	921 50	924 50	927 50	812 75	805 75	767 75	736 00	11,728 00
Hollow-ware	2,227 75	2,162 75	2,097 75	2,227 25	2,045 75	2,161 75	2,146 25	2,200 50	2,067 00	2,124 25	2,067 50	1,968 25	25,496 75
Shoe	1,944 30	1,792 80	1,803 60	1,979 70	1,794 00	1,894 20	1,858 20	1,938 90	1,833 90	1,849 80	1,799 70	1,764 60	22,253 70
Totals	\$10,012 35	\$9,412 54	\$9,411 15	\$10,152 67	\$9,127 72	\$9,407 69	\$9,242 65	\$9,332 32	\$8,695 10	\$8,886 67	\$8,623 74	\$8,371 09	\$110,675 69

TABLE No. 5.

Showing the earnings, expenditures and surplus or deficiency, for each month at Auburn prison for the fiscal year ending September 30, 1884.

MONTH.	Average number of convicts.	Earnings.	Expenditures.	Surplus.	Deficiency.
1883.					
October.....	880	\$10,629 01	\$12,886 07	.....	\$2,617 06
November.....	882	9,491 49	12,497 24	.....	3,005 75
December.....	886	9,837 22	9,834 94	\$2 28	.....
1884.					
January.....	885	10,343 27	9,870 00	473 27	.....
February.....	864	9,212 14	9,556 53	.....	344 39
March.....	857	9,818 43	9,336 71	481 72	.....
April.....	842	9,283 64	9,195 78	87 86	.....
May.....	826	9,558 23	8,687 72	870 51	.....
June.....	827	9,280 84	8,812 90	467 94	.....
July.....	812	9,494 77	9,050 70	444 07	.....
August.....	786	8,831 33	7,023 45	1,807 88	.....
September.....	769	8,946 82	8,306 84	639 98	.....
Totals.....	.....	\$114,367 19	\$115,058 88	\$5,275 51	\$5,967 20

Average number of convicts, 843.

TABLE No. 6.

COMPARATIVE STATEMENT showing the earnings and expenditures, with surplus and deficiency, by years, at Auburn prison, for the past thirteen years ending September 30, 1884.

YEARS.	Average No. of convicts.	Earnings.	Expenditures.	Surplus.	Deficiency.
1872.....	1,112	\$135,059 07	\$190,851 44	.....	\$55,792 37
1873.....	1,108	134,649 02	184,711 22	.....	50,062 20
1874.....	1,192	94,936 30	196,852 73	.....	101,916 43
1875.....	1,261	67,709 39	192,843 46	.....	125,134 07
1876.....	1,380	78,005 99	194,505 28	.....	116,499 29
1877.....	1,387	83,978 25	179,865 13	.....	95,886 88
1878.....	1,333	116,641 18	150,820 42	.....	34,179 24
1879.....	1,146	128,694 00	126,505 72	\$2,188 28	.....
1880.....	995	114,925 00	130,108 75	.....	15,183 75
1881.....	911	113,658 63	118,781 85	.....	5,123 22
1882.....	930	120,234 16	122,926 43	.....	2,692 27
1883.....	933	125,280 30	119,857 42	5,422 88	.....
1884.....	843	114,367 19	115,058 88	.....	691 69
Totals.....	.....	\$1,428,138 48	\$2,023,688 73	\$7,611 16	\$603,161 41

TABLE No. 7.

COMPARATIVE STATEMENT showing the profit or deficiency of Auburn prison by months for fiscal years 1880, 1881, 1882, 1883 and 1884.

MONTHS.	1880.		1881.		1882.		1883.		1884.	
	Profit.	Deficiency.	Profit.	Deficiency.	Profit.	Deficiency.	Profit.	Deficiency.	Profit.	Deficiency.
October.....	.....	\$3,141 44	.....	\$1,971 68	.....	\$2,517 58	.....	\$7,057 70	.....	\$2,617 06
November .....	.....	2,965 02	.....	530 61	.....	2,891 45	\$12 26	.....	.....	3,005 75
December .....	.....	2,253 44	\$590 91	.....	\$283 82	.....	108 75	.....	\$2 28	.....
January .....	.....	234 06	160 21	.....	.....	1,703 63	1,625 61	.....	473 27	.....
February.....	.....	1,336 72	603 04	.....	239 23	.....	395 51	.....	.....	344 39
March.....	\$471 07	.....	476 30	.....	1,651 81	.....	2,375 79	.....	481 72	.....
April.....	.....	772 63	591 74	.....	.....	119 62	1,118 09	.....	87 86	.....
May	660 65	.....	.....	1,047 01	.....	891 58	2,055 30	.....	870 51	.....
June.....	.....	425 31	.....	333 36	1,605 35	.....	1,132 33	.....	467 94	.....
July.....	.....	3,209 76	1,294 18	.....	198 54	.....	149 20	.....	444 07	.....
August.....	.....	226 30	.....	4,290 40	493 08	.....	1,348 96	.....	1,807 88	.....
September.....	.....	1,750 79	... ..	666 54	959 76	.....	2,158 78	.....	639 98	.....
	\$1,131 72	\$16,315 47	\$3,716 38	\$8,839 60	\$5,431 59	\$8,123 86	\$12,480 58	\$7,057 70	\$5,275 51	\$5,967 20
Deficiency in 1880.....				\$15,183 75	Deficiency in 1883.....					\$5,422 88
Deficiency in 1881.....				5,123 22	Deficiency in 1884.....					691 69
Deficiency in 1882.....				2,692 27						

TABLE No. 8.

General Statement and Averages.

Daily average of convicts confined in the Auburn prison during the fiscal year ending September 30, 1884, has been.....	843
<hr/> <hr/>	
Total receipts for the support of Auburn prison during the fiscal year ending September 30, 1884 (Treasurer's drafts).....	\$115,058 88
Total earnings of Auburn prison for the fiscal year ending September 30, 1884.....	114,367 19
<hr/> <hr/>	
Showing a deficiency of.....	\$691 69
<hr/> <hr/>	
Total earnings of the prison for the year.....	\$114,367 19
Average earnings per convict per annum.....	135 66 $\frac{7}{10}$
Average earnings per convict per month.....	11 30 $\frac{6}{10}$
Average earnings per convict per diem.....	37 $\frac{7}{10}$
<hr/> <hr/>	
Average number of convicts on contract per diem.	690
Total amount of contract earnings for the year ...	\$110,675 69
Average earnings per convict per annum.....	160 39 $\frac{9}{10}$
Average earnings per convict per month.....	13 36 $\frac{6}{10}$
Average earnings per convict per diem.....	44 $\frac{5}{10}$
<hr/> <hr/>	
Total amount of expenditures for the year.....	\$115,058 88
Average expenditures per convict per annum.....	136 48
Average expenditures per convict per month.....	11 37
Average expenditures per convict per diem.... ..	37 $\frac{9}{10}$
<hr/> <hr/>	
Total amount of expenditures for "ordinary support" for the year (see abstract).....	\$57,801 16
Average expenditures per convict per annum for "ordinary support".....	68 57
Average expenditures per convict per month for "ordinary support".....	5 71
Average expenditures per convict per diem for "ordinary support".....	19
<hr/> <hr/>	

TABLE NO. 9.

Showing the number of convicts received and discharged in each month at Auburn prison, during the fiscal year ending September 30, 1884.

MONTHS.	Received.	Discharged.	Excess received.	Excess discharged.
1883.				
October	32	28	4	.....
November.....	14	24	.....	10
December.....	36	15	21	.....
1884.				
January.	9	34	.....	25
February	23	31	.....	8
March.....	17	29	.....	12
April.....	13	30	.....	17
May .. .	19	35	.....	16
June.....	28	25	3	.....
July.....	7	32	.....	25
August.....	3	27	.....	24
September..	21	29	.....	8
Totals	222	339	28	145

TABLE NO. 10.

Showing the number of convicts in Auburn prison on the 30th day of September, 1883, including the number received, discharged, transferred and died during the fiscal year ending September 30, 1884.

	State.	U.S.	Total.	Total.
Number of convicts in prison September 30, 1883.	821	61	.....	882
Received from Auburn prison district,	188	.....	188	
Received from asylum for insane criminals,	14	.....	14	
Received from Elmira reformatory	10	.....	10	
Received from Sing Sing prison	1	.....	1	
Received from United States courts. ....	.....	8	8	
Recaptured (Clarence F. Ticar).....	1	.....	1	
			<hr/>	222
				<hr/>
				1,104
				<hr/> <hr/>
Discharged by commutation for good conduct	229	37	266	
Discharged by commutation (special). ..	*15	.....	15	

* Six were transfers from Elmira reformatory.

	State.	U. S.	Total.	Total.
Discharged by expiration of sentence (transfers from reformatory).....	6	.....	6	
Discharged by reversal of judgment.....	3	.....	3	
Discharged by pardon.....	10	1	11	
Discharged by order of Elmira reformatory)....	1	.....	1	
Discharged by parole of same.....	1	.....	1	
Discharged by recall of same.....	1	.....	1	
Transferred to asylum for insane criminals,	17	.....	17	
Transferred to Sing Sing prison.....	3	.....	3	
Transferred to Columbia, S. C.....	.....	1	1	
Died.....	13	1	14	
				339
Number remaining in prison September 30, 1884.....	736	29	.....	765
				1,104

Employed as follows :	
Number of convicts employed on axle contract...	248
Number of convicts employed on collar contract.....	46
Number of convicts employed on hame contract	59
Number of convicts employed on hollow-ware contract.....	160
Number of convicts employed on shoe contract....	114
Number of convicts employed on State work and waiters.....	135
Number of convicts sick in hospital	3
Total	765

PHYSICIAN'S REPORT.

HOSPITAL AUBURN PRISON, }
October 1, 1884. }

Hon. ISAAC V. BAKER, Jr., *Superintendent of State Prisons* :

SIR — I respectfully submit this, the annual report of the medical and sanitary department of Auburn prison, for the year ending September 30, 1884.

Whole number of convicts in prison, September 30, 1883..	882
Whole number received from the asylum.....	14
Whole number received by transfer.....	10
Whole number received by recapture.....	1
Total number received during the year.....	222
Number of convicts sent to asylum.....	17
Number of convicts died.....	14
Daily average number of convicts for the year.....	843
Number of convicts in good health when received.....	174
Number of convicts more or less disabled.....	50
Number of convicts capable of full day's work.....	669
Number of convicts in prison more or less disabled.....	98
Number of convicts received in hospital.....	148

Daily average number of convicts in hospital.....	11
Whole number of applications for treatment.....	10,445
Whole number of prescriptions	9,569
Whole number of days' labor performed <i>contract</i>	207,809
Whole number of days excused by physician for accidents..	521
Whole number of days excused by physician for sickness.	598
Total number of days excused by physician.....	1,119
Average number of deaths on average number in prison....	1.69

Regarding the health and comfort of the convicts and the general success of the prison largely dependent on its sanitary condition, I have spared no pains to make the prison in this respect all that could be desired, and the officers whose business it has been to carry out the details have been faithful and efficient; as a result we have a health record and labor account never before equaled.

In the discharge of my duty, my work interlaces every department of the prison, and hence frequent consultations with the officers, but more especially with the principal keeper, whose duties in the line of discipline are side by side with the physician, have resulted in much good feeling and harmony, and the attainment of the most humane ends and the largest amount of comfort to the inmates.

It is worthy of note, and must be a great comfort, to every citizen, having friends here, that the voluntary and cheerful performance of duty on the part of convicts is the general custom; the exception to this rule being less than ten per cent of the whole number — about ninety per cent being obedient, and getting through their whole term without punishment, and quite a large proportion getting through their term without a reprimand. Thus, it will be seen that the number is small that require more or less severe discipline. In my intercourse with officers I am happy to be able to state that I have witnessed a disposition, on the part of all of them, to avoid all severities, and to make the life of the convict as tolerable as possible within the rule of strict discipline. The study has been not how to punish, but how *not* to punish, and keep good order. The result has been a good degree of contentment on the part of the convicts and discipline comparatively easy.

I have investigated with care all complaints and applications for treatment, and have endeavored to be just and liberal.

The State authorities have supplied the hospital with every needed comfort — nothing asked for having been refused, and while we have not indulged in extravagance, it might have impressed visitors, in passing through our wards, that the hospital is a bright spot in prison life to those who need its care.

To Captain Jenkins, hospital keeper, I am under continued obligation for the prompt and kindly discharge of his duties.

The annexed tables, 1, 2, 3, 4 and 5, give further information in detail.

Respectfully yours,

LYMAN CONGDON,
Physician.

TABLE No. 1.

Exhibits the number of applications treated, not treated and excused from labor, from each shop during the year ending September, 1884.

MONTHS.	No. in prison 1st of month.	AXLE.				COLLAR.				SHOE, 1.				HAME AND PLATE.				FOUNDRY.			
		No. of applica- tions.	No. treated.	No. not treated.	No. tickets ex- cused.	No. of applica- tions.	No. treated.	No. not treated.	No. tickets ex- cused.	No. of applica- tions.	No. treated.	No. not treated.	No. tickets ex- cused.	No. of applica- tions.	No. treated.	No. not treated.	No. tickets ex- cused.	No. of applica- tions.	No. treated.	No. not treated.	No. tickets ex- cused.
1883.	882	299	268	31	14	61	56	5	8	106	97	9	6	130	108	22	7	279	246	33	52
October	886	282	265	17	17	42	36	6	2	66	61	5	5	96	94	2	7	178	172	6	25
November	876	238	229	9	13	33	30	3	1	66	62	4	4	89	82	7	8	195	176	19	34
December																					
1884.	897	309	291	13	11	37	34	3	3	99	95	4	5	108	99	9	7	260	238	22	53
January	872	359	342	17	23	43	40	3	2	101	96	5	4	82	77	5	4	246	243	3	44
February	863	320	299	21	13	20	20	..	..	60	55	5	1	62	60	2	4	206	190	16	35
March	852	431	427	4	21	44	41	3	3	89	85	4	4	70	69	1	1	243	235	8	49
April	837	383	369	14	36	52	44	8	7	56	55	1	3	93	78	15	10	242	235	7	35
May	819	301	278	23	22	39	39	..	3	70	68	2	3	75	72	3	11	295	280	15	61
June	824	290	265	25	21	35	34	1	5	61	58	3	2	45	43	2	..	255	239	16	52
July	797	248	239	9	12	21	21	..	1	55	55	..	4	54	52	2	4	286	270	16	78
August	773	279	259	20	12	35	35	..	2	56	52	4	2	44	44	..	2	344	331	13	106
September																					
total .....	....	3,739	3,531	208	215	462	430	32	37	885	839	46	43	948	878	70	65	3,029	2,855	174	624

TABLE No. 2.
Exhibits in-hospital record for the year ending September 30, 1884.

MONTHS.										
	No. in prison first of each month.	No. received each month.	No. discharged each month.	No. in prison last of month.	No. in hospital first of each month.	Admitted to hos- pital each month.	Discharged from hospital each month.	No. of deaths.	Transferred to in- sane asylum.	No. in hospital last of month.
1883.										
October.....	882	32	28	886	9	13	13	1	3	8
November.....	886	14	24	876	8	9	10	.....	2	7
December	876	36	15	897	4	12	8	.....	.....	11
1884.										
January	897	9	34	872	11	16	13	1	.....	13
February.....	872	23	31	864	14	27	24	2	2	17
March	863	17	29	852	17	11	17	.....	2	11
April.....	852	13	30	835	11	11	8	3	.....	14
May	837	19	35	819	14	15	12	2	2	17
June	819	28	24	822	17	7	16	.....	2	7
July	824	7	33	797	8	12	12	4	1	8
August	797	3	27	773	8	9	13	1	2	4
September	773	21	29	765	5	6	8	.....	1	3

TABLE No. 3.
Exhibits the number of deaths during the year 1884.

NAME.	Color.	Age.	Nativity.	Previous health.	Previous habits.	When sentenc d.	Sentence.	Crime.	How employed.	Disease.	Date of death.
George Moore.....	Mulatto.	28	Roch'r, N. Y.	Good ...	Intemp	June	yrs. mos.	Manslaughter, 4th deg...	Axle 2...	Endocarditis.....	Oct. 19, 1883.
Ephraim Slater.....	White...	37	Ithaca, N. Y.	Fair....	Intemp	Oct.	2	Rape.....	Hosp'l...	Scrofula.....	Jan. 15, 1884.
Dennis Leehan.....	White...	19	New York....	Fair....	Temp ...	May	10	Burglary, 3d degree.....	Fin'g S.	Cerebro spinal men'tis.	Feb. 7, 1884.
Charles Carris.....	White...	22	Livingst'n co., N. Y.....	Not G'd	Mod	Dec.	4	Burglary, 3d degree.....	Hosp'l...	Paralysis	Feb. 26, 1884.
Charles Hagarty.....	White...	47	Nova Scotia...	Fair	Mod....	April	1	Murder, 2d degree.....	Axle 3...	Erysipelas.....	April 15, 1884.
Charles Lake.....	Negro ...	36	New York St.	Fair	Mod	June	Life.	Grand larceny	Tallor ...	Scrofula.....	April 25, 1884.
William Jones.....	Negro ...	22	New York St.	Good ...	Intemp.	Oct.	3	Grand larceny	Hosp'l...	Phthisis.....	April 28, 1884.
Darwin Lewis.....	White...	57	New York St.	Good ...	Mod	June	2	Assault, attempt to com- mit rape.....	Found. 1	Typhoid pneumonia....	May 6, 1884.
Daniel Sullivan.....	White...	40	New York St.	Good....	Intemp.	Feb.	4	Assault, 2d degree.....	Hosp'l...	Pericarditis with effus'n	May 21, 1884.
Robert Henry.....	White...	58	Ireland.....	Good....	Intemp.	Nov.	2	Presenting a fraudulent claim agst. governm't.	State ...	Apoplexy	July 10, 1884.
George W. Burgess.....	White...	62	Massachusetts.	Not G'd.	Temp ...	Dec.	2	Forgery, 3d degree	Hosp'l...	Asphyxia	July 23, 1884.
Charles Henderson.....	Mulatto.	23	Pennsylvania.	Fair.....	Intemp.	Dec.	4	Manslaughter, 4th deg....	Hosp'l...	Albuminuria.....	July 27, 1884.
Charles P. Jones.....	White...	31	Detroit, Mich.	Good ...	Mod	March	15	Burglary, 1st and 2d deg.	Hosp'l...	Marasmus.....	July 27, 1884.
John W. Bell.....	Negro...	51	Buffalo, N. Y.	Not G'd	Intemp.	June	1	Burglary, 3d degree	Hosp'l...	Albuminuria.....	August 6, 1884.

TABLE No. 4.
Exhibits the number of convicts transferred to the Insane Asylum for the year ending September 30, 1884.

NAME.	Color.	Age.	Previous health.	Previous habits.	How employed in prison.	Nativity.	Crime.	Sentence.	When sentenced.	Received in prison.	Date of transfer.
John McNulty.....	White....	23	Good...	Moderate.	Hame ...	New York.....	Burglary, 3d degree.....	yrs. mos. 4 6	Sept. 13, 1881.	Sept. 14, 1881.	Oct. 13, 1883.
Charles Woods.....	White....	28	Good...	Moderate.	Collar ...	Canada.....	Rape	20	Feb. 18, 1878.	Feb. 20, 1878.	Oct. 22, 1883.
Patrick Ready	White....	23	Good...	Intemp....	Platt	New York.....	Burglary	5 max.	Mch. 16, 1882.	Aug. 3, 1882.	Oct. 30, 1883.
John Joyce	White....	23	Good...	Moderate.	N. wing	New York	Burglary, 1st degree	10	Oct. 10, 1880.	Oct. 12, 1880.	Nov. 16, 1883.
James McCarthy.....	White....	23	Good...	Temp'rate	Axle 1..	Ireland	Petit larceny	5	Nov. 19, 1880.	Nov. 20, 1880.	Nov. 27, 1884.
Robert McKenna	White....	21	Good...	Temp'rate	Axle 3..	New Jersey	Burglary, 3d degree	4	Oct. 23, 1882.	Oct. 30, 1882.	Feb. 25, 1884.
John Shine.....	White....	21	Good...	Intemp....	Axle 1..	Niagara	Robbery, 1st degree	10	Dec. 27, 1880.	Dec. 28, 1880.	Feb. 23, 1884.
George E. Stewart	White....	41	Good...	Intemp....	State	N. Hampshire..	Forgery, 3d degree	4	Oct. 7, 1881.	Oct. 8, 1881.	Mch. 8, 1884.
Maxime Loiseau	White....	42	Not g'd	Moderate.	.....	Canada.....	Burglary, 2d degree.....	5	Mch. 7, 1884.	Mch. 10, 1884.	Mch. 11, 1884.
John D. Stiles	White....	63	Good...	Intemp....	State.....	Germany	Bigamy, etc.....	13	Oct. 21, 1880.	Oct. 22, 1880.	May 7, 1884.
John Loomis.....	White....	31	Good...	Intemp ..	Axle 3..	Cayuga.....	Burglary, 1st degree	14	Oct. 11, 1881.	Oct. 14, 1881.	May 17, 1884.
William Moran.....	White....	29	Good...	Intemp....	Axle 1..	New York.....	Larceny from person	4	Oct. 14, 1882.	Oct. 16, 1882.	May 26, 1884.
William Coffee	White....	60	Fair....	Moderate.	N. wing	Ireland	Grand larceny	4	June 17, 1884.	June 27, 1884.	July 8, 1884.
John Cunningham.....	White....	27	Fair....	Intemp....	State ...	New York... ..	Burglary, 3d deg. and larc'y..	4	Dec. 13, 1883.	Dec. 19, 1883.	Aug. 13, 1884.
Joseph Gordon.....	White....	51	Good...	Moderate.	State	New York.....	Attempt to rape.....	3	Jan. 10, 1883.	Jan. 20, 1883.	Aug. 19, 1884.
John Shea.....	Mulatto.	23	Fair....	Moderate.	State ,...	New York.....	Grand larceny	5	Mch. 24, 1882.	Apr. 17, 1883.	Sept. 23, 1884.
William Moran	White....	29	Good...	Intemp....	Axle 1..	New York.....	Larceny from person.....	4	Oct. 14, 1882.	Oct. 16, 1882.	June 17, 1884.

TABLE NO. 5.

Our hospital casualties.

No deaths from violence or casualties.

STATE OF NEW YORK, }
 Cayuga County, } ss.:

I, Lyman Congdon, being duly sworn, do depose and say that the foregoing report is true to the best of my knowledge and belief.

LYMAN CONGDON, M. D.,

Subscribed and sworn to before me, } *Prison Physician.*
 this 2d day of October, 1884. }

T. H. DAVIS, *Notary Public.*

CHAPLAIN'S REPORT.

Hon. I. V. BAKER, Jr., *Superintendent of State Prisons :*

DEAR SIR — I have the honor to present you my annual report as chaplain of Auburn prison for the fiscal year ending September 30, 1884.

The position of chaplain in an institution of this kind is a delicate one; the difficulties of which can only be fully known to those who have had experience therein. Much has been said and written on the subject of prison reform, and how prisons should be managed, and how they should employ the labor therein, etc.

Two things must be kept in mind in our efforts to reform those who have fallen and are condemned to suffer imprisonment. First, how he shall be treated; and next, how he shall be employed.

Howard, the world-renowned philanthropist, as the result of his extensive observations, tells us, that "convicts are not ungovernable — that there is a way of managing even the most desperate among them, and *that* way is without in the least relaxing the steadiness of a calm and resolute discipline; to treat them with tenderness and humanity, that the manifestations of good will and heartfelt kindness always carry with them a softening, purifying and redeeming influence." Such was the conclusion of that great man, after many years of life among the convict classes. A conclusion that must meet the approval of all.

A kind, practical moral influence, therefore, must stand out as the chief feature in the reformation of the prisoner.

The other element that must never be overlooked is, how shall he be employed? That he should work, if able, is all important. That that work should tend to his improvement, so far as to help him in the way of an honest living, when once again free, is also important. We do not thereby mean simply to keep him busy — like a child

building his toy-house ! but teach him some trade that shall enable him to take his place among the struggling masses. The cry about his labor *in* the prison coming in contact with outside industries is all bosh. The prisoner is a *man*, and when he has paid the penalty of his crime he is entitled to his place among the ranks of men.

Idleness is the bane of our age. If the boys in the street were put to work at some useful employment, there would fewer of them come to State prison.

Our religious exercises are as they have been for many years. We have ever had the most respectful attention on the part of the prisoners in our services in the chapel. They join in singing and manifest a warm interest in the services. Suitable funeral services are held over the bodies of deceased convicts who have no friends to claim them.

Prisoners are permitted to write once a month for the first three months of their imprisonment, and after that once in six weeks. Special permission is given to write when it is found to be necessary. All correspondence goes through the chaplain's hands. Most of the incoming letters are valuable to the prisoner. They are the visible links between the cell and the home. We get by these letters the *inside* view of their home life, and also an expression of the heart-thoughts of the prisoner.

Our evening school, started this past summer, for those who could neither read nor write, is working well. Their improvement is wonderful, and the pride they feel on being able to read and to write a letter to their friends is very gratifying.

The library is very small—too small to meet the demand for reading in the cells. We hope to enlarge it soon.

I wish that a much larger amount of money could be given to the outgoing prisoner, either from the State directly or through the hands of the State agent for discharged prisoners. The reports of the agent for this purpose show conclusively that an increase in the amount annually appropriated is fully justified by past results.

I am still of the opinion that something should be done for life prisoners. As I have said before, if a man is worthy of living at all, he is worthy of some confidence, and should be permitted to *hope* that at the end of a long imprisonment he might regain his liberty. In view of recent changes in our laws, by which many who are serving life sentences could not *now* receive so severe a sentence, it is but just that all such sentences should be so modified as to come within the more recent, advanced and humane legislation.

Thanking you for your cordial support, I am

Yours very truly,

WM. SEARLS,

Chaplain.

AUBURN PRISON, *October 1, 1884.*

TABLE No. 1.

Total number of convicts September 30, 1884.

White	717
Colored	43
Indian	5
Total	765

TABLE No. 2.

Counties where convicted.

Albany	1	Ontario	17
Allegany	14	Orleans	9
Broome	12	Oswego	19
Cattaraugus	18	Otsego	16
Cayuga	35	Putnam	1
Chautauqua	17	Queens	2
Chemung	19	Rensselaer	2
Chenango	11	Richmond	3
Cortland	6	Saratoga	2
Delaware	5	Schuyler	1
Erie	84	Seneca	4
Franklin	1	Steuben	8
Genesee	8	Suffolk	1
Herkimer	18	Tioga	18
Jefferson	10	Tompkins	7
Kings	6	Ulster	1
Lewis	8	United States Court	29
Livingston	5	Wayne	13
Madison	20	Westchester	4
Monroe	41	Wyoming	10
Montgomery	1	Yates	4
New York	110	Total	765
Niagara	31		
Oneida	27		
Onondaga	86		

TABLE No. 3.

EXHIBIT of crimes against the person.

Abduction	1	Manslaughter	24
Abortion	1	Murder	46
Assault to harm	31	Obstructing U. S. officer	2
Assault to kill	27	Rape	49
Assault to ravish	13	Removing a dead body	1
Bigamy	7	Total	216
Crime against nature	1		
Incest	13		

Against property.

Arson and attempts.....	15	Grand larceny.....	142
Burglary and attempts	170	Larceny from the person ..	19
Burglary and larceny	75	Petit larceny, 2d offense...	13
Counterfeiting	11	Receiving stolen goods....	6
Carrying concealed weapons	1		
Embezzlement	3	Total	474
Forgery	19		

Against person and property.

Burglary and rape.....	2	Robbing U. S. mail.....	7
Escaping from prison	2	Stoning a passenger train..	1
Perjury	2		
Poisoning a well	1	Total	75
Robbery	60		

RECAPITULATION.

Against the person	216
Against property.....	474
Against person and property	75
Total	765

TABLE No. 4.

Showing terms of sentence.

1 year and less than 2	24	15 years and less than 20...	51
2 years and less than 3.....	101	20 years and less than life..	59
3 years and less than 4.....	76	Life	62
4 years and less than 5.....	58	Indefinite.....	33
5 years and less than 7.....	148		
7 years and less than 10....	68	Total.....	765
10 years and less than 15...	85		

TABLE No. 5.

Showing previous occupation.

Agents.....	10	Boiler-makers	3
Architect.....	1	Book-keepers.....	5
Artists	3	Brakemen	3
Auctioneer.....	1	Brewer	1
Bakers	6	Brick-layer.....	1
Banker ..	1	Brick-makers	5
Barbers	13	Broom-makers	5
Barkeepers.....	10	Butchers	11
Blacksmiths	13	Carpenters	22
Boatmen	8	Carriage-makers	2

Clerks.....	11	Plumbers.....	10
Cigar-makers.....	19	Polishers.....	3
Civil engineer.....	1	Potters.....	2
Confectioner.....	1	Printers.....	10
Cooks.....	9	Rope-maker.....	1
Coopers.....	3	Sailors and seamen.....	15
Druggist.....	1	Shoe-makers.....	36
Engineers.....	9	Showman.....	1
Farmers.....	49	Soldier.....	1
Firemen.....	3	Steel engraver.....	1
Glass-blowers.....	3	Surgeons.....	2
Harness-makers.....	4	Tailors.....	10
Laborers.....	267	Tanner.....	1
Laundrymen.....	2	Teamsters.....	19
Lawyers.....	4	Telegraph operator.....	1
Lumberman.....	1	Tinsmiths.....	3
Machinists.....	21	Trunk-maker.....	1
Mail carrier.....	1	Turner.....	1
Masons.....	21	Undertaker.....	1
Merchants.....	7	Upholsterers.....	4
Miller.....	1	Waiters.....	14
Moulders.....	15	Watch-makers.....	5
No occupation.....	4	Weavers.....	4
Painters.....	28		
Peddlers.....	7	Total.....	765
Plasterers.....	3		

TABLE No. 6.

Showing ages when convicted.

15 and less than 20.....	60	50 and less than 60.....	29
20 and less than 25.....	214	60 and less than 70.....	5
25 and less than 30.....	168	70 and less than 80.....	7
30 and less than 35.....	83	80 and less than 90.....	1
35 and less than 40.....	103		
40 and less than 45.....	60	Total.....	765
45 and less than 50.....	35		

TABLE No. 7.

*Showing their nativity.**Natives.*

Arkansas.....	1	Indiana.....	1
California.....	1	Iowa.....	1
Connecticut.....	6	Kentucky.....	2
District of Columbia.....	3	Maine.....	3
Georgia.....	2	Maryland.....	5
Illinois.....	6	Massachusetts.....	9

Michigan.....	2	Ohio.....	6
Minnesota.....	1	Pennsylvania.....	30
Mississippi.....	1	Virginia.....	1
Missouri.....	2	Vermont.....	7
New Hampshire.....	1	Wisconsin.....	3
New Jersey.....	15		
New York.....	474	Total.....	585
North Carolina.....	2		

Foreigners.

At sea.....	3	Sweden.....	3
Canada.....	39	Switzerland.....	1
England.....	12	Wales.....	2
France.....	4	West Indies.....	2
Germany.....	38		
Italy.....	13	Total.....	180
Ireland.....	61		
Scotland.....	2		

RECAPITULATION.

Natives.....	585
Foreigners.....	180
Total.....	765

TABLE No. 8.

Showing their education.

Common school.....	280	Read only.....	75
Academic.....	30	None.....	80
Collegiate.....	14		
Read and write.....	286	Total.....	765

TABLE No. 9.

Habits of life.

Intemperate.....	552
Temperate.....	213
Total.....	765

TABLE No. 10.

Received and discharged during the year.

Total number received.....	222
Total number discharged.....	339

TABLE No. 11.

*Showing times committed.**

For the first time.....	578	For the fifth time	5
For the second time.....	128	For the seventh time.....	2
For the third time	43		
For the fourth time.....	14	Total	765

TABLE No. 12.

Employed or idle when arrested.

Employed when arrested	271
Idle when arrested	494
Total	765

STATE OF NEW YORK, }
County of Cayuga, } ss. :

I, Wm. Searls, being duly sworn, do depose and say that the within report is true to the best of my knowledge and belief.
W. SEARLS.

Subscribed and sworn to before me, }
this 13th day of October, 1884. }
T. H. DAVIS, *Notary Public.*

YARD-MASTER AND ENGINEER'S REPORT.

OFFICE OF YARD-MASTER AND ENGINEER, {
AUBURN PRISON, *September 30, 1884.* }

JOHN S. LANEHART, Esq., *Agent and Warden :*

SIR — In compliance with your instructions I herewith submit a report of repairs and improvements made and labor performed in this department for the year ending September 30, 1884.

In consequence of the great weight of machinery in axle one the south wall of the building gave away to a limited extent, and it was thought advisable to strengthen it by putting a line of posts through the entire length of the building, forming a timber truss resting on stone piers, which receive the principal weight of the truss timbers forming the roof and to which the shafting is bolted. This insures safety to the building and those employed therein. It was completed in December at an expense of \$98.29.

*To this or to any other prison of the grade of a State prison anywhere.

A defective draft in the chimney of shoe one made it necessary to build the same fifteen feet higher. It cost \$78.40, and was completed in April.

Repairs to the brick cornice of the building used for kitchen, meat cellar, bath-house and ice house were made in April at an expense of \$53.93 for material.

In the latter part of April a tunnel was discovered leading from the ice-house under the road-way and to the south wall of the prison. In excavating to ascertain its extent, it was found that the objective point was where an old flue formerly passed through the wall. This upon investigation brought to light a dangerously weak point. It was made secure by filling the flume adjoining the wall with four feet of solid masonry and refilling the tunnel with stone. It was completed on the 12th of May, at an expense of \$74.41.

A new roof of Warren's Felt and Roof Coating has been put on the soap-house, at a cost of \$31.43.

Repairs to the roof of shoe one were completed in May, at an expense of \$53.53.

Extensive repairs have been made in the chapel. The seats have been grained and varnished, a new platform and desk built, new carpets laid, new and appropriate pulpit furniture put in, also a new organ of elegant design and workmanship. The side walls have been repainted and a new desk built for the principal keeper. This was completed on the 28th of July, at an expense of \$611.44.

It was found necessary to remove the entire stone-work forming the stairs leading from the keepers' hall to the inside yard, in consequence of a defective foundation. They have been rebuilt and furnished with new iron hand-rails at an expense of \$522.35.

The stairs leading to the several galleries in the north and the south wings have been furnished with iron stair-plates and the galleries repaired at an expense of \$165.

The tin roofs of the hammer shop, ice-house, bath-house and meat-cellar have been painted, and the felt roofs of the kitchen and coal-shed covered with roof coating, at a cost of \$46.87.

On the 17th of July the work of rebuilding the battlement walls of the main building was commenced. In order to obviate the necessity of lowering the stone to the ground, a scaffolding fifty-five feet in height, extending across the entire front, and of sufficient strength to support an estimated weight of two hundred and fifty tons, was erected. Upon this the stone work rested; as it was necessary to remove the entire wall for a distance of from four to eight feet in consequence of its dangerous condition, being from three to six inches out of plumb. The scaffold was subjected to its utmost capacity at times. The work was completed, without accident or injury to any one, the latter part of September, at an expense of \$1,039.68.

Repairs to the roofs of the main buildings have been made to the amount of \$195.22.

The iron window gratings have been painted at an expense of \$24.

About the 1st of October there was inaugurated and put in practice a system of electric alarm signals, whereby officers in charge of shops throughout the yard are enabled to call assistance from the keeper's hall. An electric time clock is also connected with the system, to which sixteen stations in different parts of the yard are connected. The night guard is required to visit each of these stations once an hour and report to the keeper's hall, where the time clock registers the number of the station and the time the report was made. This work was finished on the 10th of November, and has amply demonstrated its efficiency and worth. The instruments and material cost \$300. The work was done by convicts.

New floors and other extensive repairs are in progress at this date in the tailor shop.

Amount of convict labor on the above repairs, nine hundred and nine days. Miscellaneous labor, care of grounds, distribution of supplies, breaking stone, etc., five thousand three hundred and twenty-six days. Total number of days' labor performed, six thousand two hundred and thirty-five. Cost of material for completed work, \$3,294.55.

The roadways, sewers and prison grounds are in good order. The buildings, roofs and steam, gas and water-works are in good repair.

Respectfully submitted,

JOHN C. WHITE,

Yard-Master and Engineer.

CLINTON PRISON.

OFFICE OF THE AGENT AND WARDEN, }
CLINTON PRISON, }
DANNEMORA, N. Y., *October 1, 1884.* }

To the Hon. ISAAC V. BAKER, Jr., *Superintendent of State Prisons,*
Albany, N. Y.:

MY DEAR SIR — I have the honor of handing you herewith my annual report of the affairs of this prison for the fiscal year ending September 30, 1884, which appears in detail in the respective accounts and statements of the clerk, physician and chaplain, to which I add, agreeably to your request, an epitomized history of the institution from its foundation so far as I have been able to gather it from the records in this office, many of which are, after the lapse of many years, incomplete.

In the year 1842, it was determined by the Legislature to establish a prison in northern New York if convict labor could be made available in the mining and smelting of iron ore, and Mr. Ransom Cook was appointed a commissioner to investigate the subject, and to report his conclusions, which he did to the session of the year 1844, advising the feasibility of the plan; whereupon a bill was reported and finally passed providing for the location of the buildings at this place, and Ransom Cook was appointed agent, with power to prosecute the work of erecting them, which he accomplished in the main by the aid of convicts brought here from Sing Sing and Auburn.

For the first ten years the men were employed in raising the ore which was sold to parties carrying on smelting works at Saranac and other points near by. In 1853, extensive works were erected within the prison grounds, and labor was contracted to a company at a *per diem* rate for the manufacture of nails. This undertaking proved disastrous to the company as it did subsequently to the State which assumed it on its own account, and was finally abandoned under the administration of the Honorable L. D. Pillsbury, who returned to the contract system by engaging the services of the men to William Carroll & Co., of New York city, for five years, to manufacture hats at forty cents per day per man. This lease expired in March, 1883, and, its renewal being prohibited by statute, a new arrangement was entered into with the New York State Clothing Company, of Plattsburgh, this State, under the usual terms and conditions for five (5) years at thirty-five cents per man per day — that being the best bid under a call for proposals for such labor. This company began

work in June, 1883, and now gives employment to 425 men in the various departments called for in the manufacture of clothing.

Since the foundation of Clinton prison, fourteen wardens have followed each other in its management; and I may mention as a passing incident that Saratoga county furnished the first in the person of Ransom Cook, as it furnishes the last and present one in the person of your humble servant, who subscribes himself.

Yours, very respectfully,

ISAIAH FULLER,

Agent and Warden.

FINANCIAL.

Isaiah Fuller, Agent and Warden of Clinton State prison, in account current with the State of New York, for cash received and expended for the use of said prison for the fiscal year ending September 30, 1884.

DR.

To cash on hand October 1, 1883.....	\$124 45
To Treasurer's drafts for maintenance.....	100,002 93
To cash received from all other sources.....	46,974 49
Total	<u>\$147,101 87</u>

CR.

By expenditures, viz.:

Estimate No. 1. Salaries of officers....	\$42,710 70
Estimate No. 2. Rations.....	30,053 09
Estimate No. 3. Materials, tools, etc.....	831 64
Estimate No. 4. Stationery and postage.....	430 56
Estimate No. 5. Mileage and allowance.....	2,711 50
Estimate No. 5. Convict deposit refunded.....	1,291 97
Estimate No. 6. Furniture	146 98
Estimate No. 7. Drugs and medicine.....	188 07
Estimate No. 8. Clothing and bedding.....	4,709 28
Estimate No. 9. Buildings and repairs.....	525 17
Estimate No. 10. Fuel and lights.....	10,297 03
Estimate No. 11. Hay, straw and feed.....	1,424 09
Estimate No. 12. Miscellaneous.....	4,051 14
Deposits to credit Treasurer, State of New York.....	46,974 49
Cash on hand October 1, 1884.....	756 16
Total	<u>\$147,101 87</u>

STATE OF NEW YORK, }
Clinton County, } ss.:

Isaiah Fuller, agent and warden, and Charles E. Martin, clerk of Clinton State prison, being duly sworn, say that the foregoing account current is correct and true, according to the best of their knowledge and belief.

ISAIAH FULLER,
Agent and Warden.
 C. E. MARTIN,
Clerk.

Subscribed and sworn before me, this }
 10th day of October, 1884. }

JAMES I. HART,
Justice of the Peace, Town of Plattsburgh, Clinton county, N. Y

CLERK'S REPORT

For the fiscal year ending September 30, 1884.

CLINTON PRISON, CLERK'S OFFICE, }
 DANNEMORA, *October 1, 1884.* }

To the Hon. ISAAC V. BAKER, Jr., *Superintendent of State Prisons,*
Albany, N. Y.:

SIR — I have the honor to submit herewith the following annual report of the department under my charge in the Clinton State prison, for the fiscal year ending September 30, 1884.

Very respectfully,

C. E. MARTIN, *Clerk.*

TABLE No. 1.

ABSTRACT of the total earnings and cash receipts, and the total cash expenditures, with the average number of convicts per day and per month, at the Clinton prison, from October 1, 1883, to September 30, 1884.

MONTHS.	Contract earnings.	Miscellaneous earnings.	Convict deposits.	Total earnings.	Deposits in banks.	Treasurer's draft.	Salaries of officers.	Expenditures for ordinary support.	Expenditures for building, repairs, etc.	Convict deposit refunded.	Total expenditures.	Number convicts on contract.	Number not on contract.	Number at close of month.	Monthly average.	Deficiency.
1883.																
October	\$3,389 40	\$114 48	\$66 87	\$3,570 75	\$3,271 70	\$10,304 31	\$3,346 32	\$6,674 49	.....	\$53 09	\$10,073 90	373	116	489	486	\$6,503 15
November	3,161 20	240 82	15 76	3,417 78	3,585 68	11,947 19	3,385 02	8,031 71	\$324 61	26 73	11,768 07	364	111	475	480	8,350 29
December	3,187 98	1,104 11	228 60	4,520 69	4,560 55	8,824 37	3,463 66	3,103 03	101 92	50 05	6,718 66	376	110	486	478	2,197 97
1884.																
January	3,651 38	201 38	57 39	3,910 15	3,451 74	7,601 75	3,508 81	5,714 42	.....	626 52	9,849 75	407	124	531	519	5,939 60
February	3,499 82	490 75	8 70	3,999 27	4,150 83	9,735 37	3,476 47	6,221 33	.....	68 09	9,765 89	405	121	526	527	5,766 62
March	3,581 73	336 50	38 35	3,956 38	3,874 47	9,963 39	3,464 27	4,871 28	.....	10 15	8,345 70	401	116	517	520	4,389 32
April	3,537 27	481 16	121 85	4,140 28	4,184 74	8,560 95	3,423 06	4,472 08	50 62	167 42	8,113 18	396	116	512	513	3,972 90
May	3,639 65	214 46	47 11	3,901 22	3,798 84	8,237 55	3,803 46	4,129 30	26 10	58 62	8,017 48	391	113	504	510	4,116 26
June	3,469 03	139 70	47 61	3,656 34	3,826 96	7,170 10	3,757 64	3,188 70	17 53	18 35	6,982 22	433	130	563	538	3,325 88
July	3,912 30	252 86	14 86	4,180 02	3,736 75	6,497 61	3,673 65	3,114 97	.....	55 78	6,844 40	434	129	554	558	2,664 38
August	3,805 20	449 81	35 00	4,290 01	4,397 11	7,478 75	3,743 12	3,539 91	.....	12 05	7,295 08	418	121	539	544	3,005 07
September	3,708 60	199 96	55 21	3,963 77	4,060 37	5,659 61	3,665 22	1,782 16	4 39	145 12	5,596 89	404	108	572	544	1,633 12
Totals	\$42,543 56	\$4,225 79	\$737 31	\$47,506 66	\$46,899 74	\$100,002 93	\$42,710 70	\$54,843 38	\$525 17	\$1,291 97	\$99,371 22	4,802	1,466	6,268	6,217	\$51,864 56

TABLE No. 2.

STATEMENT of expenditures, by estimates, showing the expense per convict per annum, per month and per diem in Clinton State prison for the fiscal year ending September 30, 1884.

ESTIMATES.		Total amount of expenditures.	Average per convict per annum.	Average per convict per month.	Average per convict per diem.
Estimate No.	1. Salaries of officers.....	\$42,710 70	\$81 82 ¹ / ₁₀	\$6 81 ⁸ / ₁₀	Cents. 22 ⁴ / ₁₀
Estimate No.	2. Rations.....	30,053 09	57 57 ³ / ₁₀	4 79 ⁶ / ₁₀	15 ⁷ / ₁₀
Estimate No.	3. Materials and tools.....	831 64	1 59 ³ / ₁₀	13 ² / ₁₀	4 ⁴ / ₁₀
Estimate No.	4. Stationery and postage.....	430 56	82 ⁵ / ₁₀	6 ⁸ / ₁₀	2 ⁷ / ₁₀
Estimate No.	5. Mileage and allowance.....	2,711 50	5 19 ⁵ / ₁₀	43 ⁴ / ₁₀	1 ⁵ / ₁₀
Estimate No.	5. Convict deposit refunded.....	1,291 97	2 47 ⁵ / ₁₀	20 ⁶ / ₁₀	7 ⁷ / ₁₀
Estimate No.	6. Furniture.....	146 98	28 ¹ / ₁₀	2 ⁴ / ₁₀	1 ¹ / ₁₀
Estimate No.	7. Drugs and medicines.....	188 07	36	3	1 ¹ / ₂₀
Estimate No.	8. Clothing and bedding.....	4,709 28	9 02 ¹ / ₁₀	75 ⁴ / ₁₀	2 ⁵ / ₁₀
Estimate No.	9. Buildings and repairs.....	525 17	1 00 ⁶ / ₁₀	8 ⁴ / ₁₀	3 ³ / ₁₀
Estimate No.	10. Fuel and lights.....	10,297 03	19 72 ⁶ / ₁₀	1 64 ³ / ₁₀	5 ⁴ / ₁₀
Estimate No.	11. Hay, straw and feed.....	1,424 09	2 72 ⁸ / ₁₀	22 ⁷ / ₁₀	8 ⁸ / ₁₀
Estimate No.	12. Miscellaneous.....	4,051 14	7 76 ¹ / ₁₀	64 ⁷ / ₁₀	2 ¹ / ₁₀
Total.....		\$99,371 22	\$190 36 ⁵ / ₁₀	\$15 86 ³ / ₁₀	52 ² / ₁₀
“ Ordinary supports”		\$54,843 38	\$105 06 ⁴ / ₁₀	\$8 75 ⁵ / ₁₀	28 ⁶ / ₁₀

NOTE.-- Estimate No. 2 is arrived at on basis of actual purchase of kitchen supplies, and makes no allowance for credits for officers' board, warden's living, and supplies on hand. With such credits deducted, the actual expense per convict, per diem, is 12 5-10 cents.

TABLE No. 3.

STATEMENT showing the existing contract in the Clinton State prison ; the number of convicts called for by such contract ; the price per day ; the time when it commenced and when it expires.

Name of contract.	NAME OF CONTRACTOR.	No. of con- victs.	Price per day.	Commenced.	Expires.
Clothing	N. Y. State Clothing Co.	450	35c	June 10, '83	June 10, '88

TABLE No. 4.

STATEMENT showing the amount earned each month at the Clinton State prison under the existing contract for convict labor, during the fiscal year ending September 30, 1884.

CLOTHING CONTRACT.

1883.	
October	\$3,389 40
November	3,161 20
December	3,187 98
1884.	
January	3,651 38
February	3,499 82
March	3,581 73
April	3,537 27
May	3,639 65
June	3,469 03
July	3,912 30
August	3,805 20
September	3,708 60
Totals	<u>\$42,543 56</u>

TABLE No. 5.

STATEMENT showing the earnings, expenditures and deficiency for each month at Clinton State prison for the fiscal year ending September 30, 1884.

MONTHS.	No. of con- victs.	Earnings.	Expenditures.	Deficiency.
1883.				
October	489	\$3,570 75	\$10,073 90	\$6,503 15
November	475	3,417 78	11,768 07	8,350 29
December	486	4,520 69	6,718 66	2,197 97
1884.				
January	531	3,910 15	9,849 75	5,939 60
February.....	526	3,999 27	9,765 89	5,766 62
March.....	517	3,956 38	8,345 70	4,389 32
April.....	512	4,140 28	8,113 18	3,972 90
May.....	504	3,901 22	8,017 48	4,116 26
June.....	563	3,656 34	6,982 22	3,325 88
July.....	554	4,180 02	6,844 40	2,664 38
August.....	539	4,290 01	7,295 08	3,005 07
September.....	572	3,963 77	5,596 89	1,633 12
Totals.....	....	\$47,506 66	\$99,371 22	\$51,864 56

TABLE No. 8.

General statement and averages.

The daily average of convicts confined in the Clinton State prison during the fiscal year ending September 30, 1884, has been	52 2
The total receipts for the support of Clinton State prison during the fiscal year ending September 30, 1884 (Treasurer's drafts).....	\$100, 002 93
The total earnings of Clinton State prison for the fiscal year ending September 30, 1884	47, 506 66
	\$52, 406 27
Cash on hand September 30, 1884.....	\$756 16
Less cash on hand September 30, 1883.....	124 45
	631 71
	\$51, 864 56
The total earnings of the prison for the year.....	\$47, 506 66
The average earnings per convict per annum	91 00 ⁹ / ₁₀
The average earnings per convict per month	7 58 ³ / ₁₀
The average earnings per convict per diem	29 ¹ / ₆

The average number of convicts on contract per diem.	400
The total amount of contract earnings for the year...	42, 543 56
The average earnings per convict per annum.....	106 35 $\frac{9}{10}$
The average earnings per convict per month.....	8 86 $\frac{3}{10}$
The average earnings per convict per diem	35
The total amount of expenditures for the year	99, 371 22
The average expenditures per convict per annum....	190 36 $\frac{5}{10}$
The average expenditures per convict per month....	15 86 $\frac{3}{10}$
The average expenditures per convict per diem	52 $\frac{2}{10}$
The total amount of expenditures for ordinary support for the year (see abstract).....	54, 843 38
The average expenditure per convict for ordinary support, per annum.....	105 06 $\frac{4}{10}$
The average expenditure per convict for ordinary support, per month	8 75 $\frac{5}{10}$
The average expenditure per convict for ordinary support, per diem	28 $\frac{8}{10}$
The actual cost per convict per day for board as shown by kitchen keeper's books, is	12 $\frac{5}{10}$

SPECIAL APPROPRIATION.

	Amount of appropriation.	Amount expended.	Amount on hand.
For furnishing warden's new house, steam heating apparatus, annunciator, etc., watchman's clock.....	\$9, 992 25	\$850 00	\$9, 142 25

TABLE NO. 9.

STATEMENT showing the number of convicts received and discharged in each month at the Auburn State prison during the fiscal year ending September 30, 1884.

MONTHS.	Received.	Discharged.	Excess received.	Excess discharged,
1883.				
October	21	16	5	.....
November	5	19	.....	14
December	20	8	12	.....
1884.				
January	56	12	44	.....
February.....	11	16	.....	5
March.....	9	19	.....	10
April.....	4	8	.....	4
May.....	9	17	.....	8
June.....	72	13	59	.....
July.....	11	20	.....	9
August.....	.....	15	.....	15
September	54	21	33	.. ....
Totals.....	272	184	153	65

Average number received per month, 23 ; average number discharged per month, 15.

TABLE NO. 10.

STATEMENT showing the number of convicts in the Clinton State prison on the 30th day of September, 1883, also number received, discharged, transferred and died during the fiscal year ending September 30, 1884.

Convicts in prison September 30, 1883.....	484
Convicts received during fiscal year ending September 30, 1884.....	272
	<hr/>
	756
Convicts discharged by commutation.....	162
Convicts discharged by commutation (special)... ..	1
Convicts discharged by expiration of sentence.....	2
Convicts discharged by transfer to Sing Sing prison..	1
Convicts discharged by transfer to Auburn asylum...	4

Convicts discharged by pardon.....	3	
Convicts died	11	
		<hr/> 184
Convicts remaining in prison September 30, 1884.....		<hr/> <hr/> 572

Employed as follows:

Convicts employed on clothing contract.	404	
Convicts employed on State work and waiters.....	160	
Convicts sick in hospital.....	8	
		<hr/> 572
		<hr/> <hr/>

HOSPITAL, CLINTON PRISON, }
October 1, 1884. }

Hon. I. V. BAKER, Jr., *Superintendent of State Prisons, State of New York*:

The annual report of the medical and sanitary departments of Clinton prison for the year ending September 30, 1884, is herewith respectfully submitted.

Whole number in prison September 30, 1883.....	485
Number received by transfer	150
Number received by sentence to Clinton direct	121
Total received during the year.....	271
Number sent to asylum for insane convicts.....	4
Number died.....	11
Monthly average convicts for the year.....	522
Number more or less disabled when received.....	192
Number in <i>good</i> health when received.....	79
Number admitted to hospital.	45
Average in hospital first day of each month.....	8 ⁶ / ₁₂
Whole number of applications.....	6, 643
Whole number treated	5, 875
Whole number of days excused from labor	279
Whole number of days lost in hospital.....	2, 718
Number of pardons.	3

The health of the convicts has generally been better than for some years past.

There have been eleven deaths; which, considering all the circumstances, is a favorable death-rate. The deaths were, with one exception, all from chronic diseases.

Eight of the cases were transferred to this prison in bad health, and were admitted to hospital on their arrival here, or very soon thereafter. Since June 1, 1880, there have been sixty-two deaths at this prison: of these, forty-seven were transferred to this from other prisons with impaired health when transferred.

The number of convicts sent to the asylum for the insane from 1877 to September 30, 1883, both inclusive, is forty-six; of these, twenty-six were sent here from Sing Sing, and two from Auburn.

In these seven years ending with September 30, 1883, the numbers sent to the asylum from each prison respectively are as follows: From Sing Sing, fifty-four; from Auburn, ninety-one; from Clinton, forty-six. Taking from the number sent from Clinton, those who justly belonged to other prisons, and who were transferred to this *after* their mental unsoundness became manifest, and restore the numbers where they belonged, the account will stand as follows: Sing Sing, eighty; Auburn, ninety-three; Clinton, eighteen.

In table No. 5, I have endeavored to give, as nearly as possible, the yearly death-rate for the years I can find reported, and the annual rate per 1,000; also the number sent annually to the asylum for the insane since its opening, with the rate per 1,000 of the annual average number of convicts.

I give in a supplemental table the number of convicts yearly received in prison for a few years past, and the number of them who have been in prison before with the rate per 1,000 of receptions.

House of Refuge, penitentiary, reformatory and State prisons are included.

Dr. MacDonald of the Asylum for Insane Convicts, in his report for 1882, says: "In March last, I determined to discontinue the practice of issuing tobacco to the patients, for the reason that the use tended to excite irritability, and to otherwise aggravate disturbed mental conditions. * * * The result has been most satisfactory; the clamor for it, which was almost constant and very annoying, when a weekly ration of tobacco was regularly issued, has entirely subsided. * * * I am convinced by both observation and reflection, that tobacco, when used to excess, ranks next to alcoholic stimulants as a deteriorating and demoralizing agent." (Report of Superintendent of Prisons, 1882, page 83.)

I most fully concur in the views expressed by Dr. MacDonald.

In a former report, I took the liberty to use the following language: "Allow me in this connection, to suggest the propriety of cutting off the tobacco ration. * * * I am well satisfied that very many suffering from indigestion and nervous diseases are made worse, if their disease is not directly caused, by its constant use.

"If it is allowed as a luxury, might not some privilege or article of diet be substituted for it, which, instead of being injurious, would be beneficial?" (Report of Inspectors of State Prisons, 1862, p. 349.)

Further and more extended experience has very greatly confirmed the views I then expressed—the hardship of being deprived of tobacco is probably no greater than that of giving up alcoholic drinks, and that has to be done when a man comes into prison.

If I were to suggest an equivalent I would say, give one ration at least a day of *good* coffee, and I confidently believe it would be but a short time before there would be general satisfaction among the convicts and an improved sanitary condition.

Another matter I deem worthy of consideration. It frequently occurs that when a convict dies, and friends are notified, they request the body sent to their address, which cannot be done without prepayment of transportation -- to do which the agent seems to have no authority.

In many cases the friends are poor, and it is a great hardship, if not impossible, for them to comply with the requirements of express companies.

If the man were discharged alive he would be entitled to money enough to cover his fare at least. Would it not be consistent to make an agreement whereby the agent should be authorized to forward the body on request, and take voucher for pre-payment from railroad or express companies, as the case may be?

The delays which sometimes occur are very annoying to all parties, and often involve a large amount of telegraphing, which could in this way be easily avoided; besides, in warm weather the body is apt to become offensive from the length of time it is kept.

With thanks for favors received, I remain,

Yours respectfully,

JOSEPH H. SMITH, M. D.,

Physician to Clinton Prison.

TABLE No. 1.
Out-hospital report.

MONTHS.	Applications for treatment.	No. treated.	No. not treated.	No. excused one day each.	Average of applications.	Average number treated.	Daily average not treated.	Daily average excused.	No. in prison last day of each month.
1883.									
October	668	592	76	34	25 $\frac{18}{26}$	22 $\frac{20}{26}$	22 $\frac{4}{26}$	1 $\frac{8}{26}$	489
November	537	475	62	22	20 $\frac{17}{26}$	18 $\frac{7}{26}$	21 $\frac{0}{26}$	2 $\frac{26}{26}$	475
December.....	467	403	64	21	17 $\frac{11}{26}$	15 $\frac{13}{26}$	21 $\frac{6}{26}$	2 $\frac{21}{26}$	486
1884.									
January.....	640	578	62	39	24 $\frac{16}{26}$	22 $\frac{6}{26}$	21 $\frac{0}{26}$	1 $\frac{3}{26}$	531
February	598	530	68	13	23 $\frac{21}{26}$	20 $\frac{10}{26}$	21 $\frac{8}{26}$	1 $\frac{3}{26}$	526
March.....	704	634	70	36	27 $\frac{2}{26}$	24 $\frac{10}{26}$	21 $\frac{8}{26}$	1 $\frac{0}{26}$	516
April.....	548	467	81	35	21 $\frac{2}{26}$	17 $\frac{25}{26}$	3 $\frac{3}{26}$	1 $\frac{9}{26}$	512
May.....	457	415	42	16	17 $\frac{9}{26}$	15 $\frac{25}{26}$	11 $\frac{6}{26}$	1 $\frac{6}{26}$	506
June.....	453	388	65	16	18 $\frac{3}{26}$	15 $\frac{13}{26}$	21 $\frac{3}{26}$	1 $\frac{6}{26}$	559
July	479	425	54	20	18 $\frac{11}{26}$	16 $\frac{6}{26}$	22 $\frac{2}{26}$	2 $\frac{4}{26}$	554
August.....	551	481	70	15	21 $\frac{5}{26}$	18 $\frac{13}{26}$	21 $\frac{8}{26}$	1 $\frac{26}{26}$	539
September.....	541	487	54	12	20 $\frac{2}{26}$	18 $\frac{19}{26}$	22 $\frac{2}{26}$	1 $\frac{2}{26}$	573
Totals.....	6,643	5,875	768	279	.....	.....	.....	.....	.....

TABLE No. 2.
In-hospital report.

MONTHS.	No. in prison first of month.	No. received.	No. discharged.	No. in prison last day of month.	In hospital first day of month.	Admitted.	Discharged.	Died.	No. treated each month.	Total number of days lost in hospital.	Sent to asylum.
1883.											
October	485	21	17	489	6	5	3	...	11	199	...
November.....	489	5	19	475	8	4	4	2	12	210	4
December.....	475	20	9	486	6	...	1	1	6	130	...
1884.											
January.....	486	56	11	531	4	9	1	...	13	204	...
February	531	11	16	526	12	3	4	2	15	238	...
March.....	526	9	19	516	9	7	4	2	16	253	...
April.....	516	4	8	512	10	3	1	...	13	285	...
May.....	512	9	15	506	12	3	3	2	15	301	...
June.....	506	72	19	559	10	1	2	1	11	237	...
July	559	10	15	554	8	5	3	...	13	250	...
August.....	554	.....	15	539	10	...	3	...	10	246	...
September.....	539	54	20	573	7	5	3	1	12	165	...
Totals.....	.....	271	183	.....	....	45	32	11	....	2,718	4

TABLE No. 3.
Number of deaths during the year.

NAMES.	Color.	Age.	Habits.	Crime.	Term.	Entered prison.	Entered hospital.	Date of death.	Disease.
Wm. H. Lyman...	White...	42	Moderate....	Forgery.....	4 years.	Dec. 10, 1881	Nov. 3, 1883	Nov. 12, 1883	Disease of liver.
Daniel O'Connell..	White...	40	Intemperate..	Highway robbery....	12 years.	Apr. 19, 1881	July 27, 1883	Nov. 25, 1883	Phthisis.
Wm. A. Barnes ...	White...	41	Moderate....	Grand larceny.....	4 years.	Sept. 13, 1882	Dec. 11, 1882	Dec. 22, 1883	Phthisis.
Geo. P. Henry	White...	22	Temperate...	Assault and battery..	3½ years.	Jan. 30, 1882	Oct. 29, 1883	Feb. 6, 1884	Phthisis.
Frank Watson.....	White...	22	Moderate....	Att. at burg., 3d deg..	2 years.	Sept. 11, 1883	Jan. 30, 1884	Feb. 18, 1884	Phthisis.
Francis Gillen.....	White...	34	Moderate....	Murder, 2d degree....	Life.....	July 2, 1873	Nov. 19, 1883	Mar. 19, 1884	Phthisis.
Joseph Weil	White...	25	Moderate....	Burglary, 1st degree..	3½ years.	Jan. 29, 1881	Mar. 3, 1884	Mar. 30, 1884	Phthisis.
Geo. Johnson.....	Black...	39	Moderate....	Receiv'g stolen goods.	3½ years.	Dec. 12, 1882	May 6, 1884	May 14, 1884	Typhus fever.
Heman Fosner	White...	56	Temperate...	Burglary, 3d degree..	3 years.	June 12, 1883	Feb. 25, 1884	May 19, 1884	Chronic hepatitis.
John Ryan	White...	28	Moderate....	Burglary, 2d degree..	10 years.	Aug. 15, 1881	Mar. 10, 1884	June 18, 1884	Tuberculosis.
John McCue.....	White...	23	Moderate....	Robbery, 1st degree..	15 years.	Nov. 30, 1882	April 10, 1884	Sept. 26, 1884	Phthisis.

TABLE No. 4.
Convicts sent to Asylum for the Insane during the year.

NAMES.	Color.	Age.	Nativity.	Crime.	Term.	Date of sentence.	Where sentenced.	When transferred.
John Stone.....	Black....	29	New York..	Grand larceny..	3 yrs.	May 10, 1882.	Washington Co..	Nov. 20, 1883.
Alexander Caulfield.....	White...	20	New York..	Murder, 2d deg.	Life..	Nov. 20, 1880.	New York.....	Nov. 20, 1883.
George Droessel.....	White...	33	Germany...	Arson, 1st deg..	Life..	Jan. 28, 1874.	New York.....	Nov. 20, 1883.
Frank Little.....	White....	22	New York..	Robbery	10 yrs.	Mar. 15, 1883.	Rensselaer Co...	Nov. 20, 1883.

YEAR.

1880.....	No. received	No. been in prison before.	No. in prison before per 1,000.
1881.....	90	36	400
1882.....	222	108	486 +
1883.....	210	93	442 +
1884.....	165	66	400
	225	99	449

TABLE No. 5.

ANNUAL STATEMENT of deaths, pardons and insane at Clinton since 1850, as near as can be obtained, ending with September 30, 1884.

YEAR.	Monthly av- erage in prison.	No. of deaths.	No. of deaths per 1,000.	No. of par- dons.	No. sent to Asylum for Insane.	No. of insane per 1,000.
1850.....	119	3	26	5	....	.....
1852.....	125	2	16	12	....	.....
1856.....	304	4	13.15	....	....	.....
1859.....	399	2	5	....	12	30 +
1862.....	498	5	10 +	....	5	10
1863.....	400	4	10	....	1	2.5
1865.....	439	7	15.94	....	3	6.8
1866.....	512	3	5.85	18	1	1.95
1867.....	518	2	3.86	....	1	1.93 +
1869.....	509	6	11.78	14	6	11.78 +
1870.....	488	10	20.48	12	4	8.19 +
1871.....	518	5	9.63	17	2	3.86 +
1874.....	553	8	14.4	6	4	7.2 +
1877*.....	584	7	12.16	14	6	10.27 +
1878.....	615	12	19.51	12	5	8.13 +
1879.....	573	4	6.98	10	10	17.45 +
1880.....	484	10	20.65	3	9	18.59 +
1881.....	539	15	27.82	....	8	14.84 +
1882.....	518	17	32.81	....	4	7.72 +
1883.....	506	12	23.71	3	4	7.9 +
1884.....	522	11	21.07 +	3	4	7.6 +

* Estimated average.

STATE OF NEW YORK, } ss. :
Clinton County, }

Joseph H. Smith, being duly sworn, says that the foregoing re-
port is correct, according to the best of his knowledge and belief.

JOSEPH H. SMITH,
Physician to Clinton Prison.

Subscribed and sworn before me, }
this 1st day of October, 1884. }

C. E. MARTIN,
Notary Public.

CHAPLAIN'S REPORT

For the year ending September 30, 1884.

To the Hon. I. V. BAKER, Jr.:

DEAR SIR — In a region of effort where facts cannot be ascertained and figures have no chance to make estimates, it is next to impossible to report progress. The question whether or no any man has received any permanent impressions for good and made any honest resolve to lead a godly, righteous and sober life, is one which can hardly be determined until the man shall have been for a long time released from the forced restraint of bars and bolts, and so left free to choose the right and shun the wrong under the influence of Christian principle alone and in the face of many temptations. I am satisfied, however, that some good always follows every rightly-directed effort.

I can only say, therefore, in presenting this annual report, that it has been my desire and ambition to make the men better and to lead them into higher motives of life, in whatever way I could, by the regular chapel service and by personal interest in the men individually, in hall and hospital, and wherever I could meet them.

I look upon the chapel service as a very important means of influence, and do, therefore, deplore any omission of the same except when unavoidable. I am satisfied that a great deal is lost whenever a chapel service on Sunday morning is omitted, except for causes that can be seen and appreciated.

Care should be taken too to make the chapel itself attractive in the neatness and appropriateness of its furnishing. I have made this a point to work for, and hope to be able to carry out plans of improvement.

The library here is not in a very good condition. Of the books we have, many are unsuitable and unappreciable. Much of the religious literature in the library is unadapted to our needs.

The difficulties in the way of furnishing reading matter are very serious. We have many men, perhaps a third or more of the whole number, who know how to use a book well and who value good reading. For these we should take care to furnish the right kind of reading; and the books must be kept as far as possible out of the reach of the destructive element which so abounds in a place like this.

On the whole, if we could keep the library supplied with a few good books, and then have a liberal supply of standard weekly and monthly papers and magazines, it would be in every way a profitable investment.

Wishing you all success in your responsible office,

I remain yours very sincerely,

J. W. McILWAINE,
Chaplain.

STATISTICAL TABLES ACCOMPANYING THE CHAPLAIN'S REPORT FOR THE YEAR ENDING SEPTEMBER 30, 1884.

TABLE No. 1.

Number of convicts received during the year.

White.....	249
Colored.....	23
	<hr/>
	272
	<hr/>

Of these there were received

By commitment.....	122
By draft from Sing Sing.....	150
	<hr/>
	272
	<hr/>

TABLE No. 2.

Counties where convicted.

Albany.....	20	Richmond.....	3
Cayuga.....	1	Rockland.....	1
Columbia.....	6	Saratoga.....	14
Clinton.....	6	Schenectady.....	8
Franklin.....	4	Schoharie.....	2
Fulton.....	4	St. Lawrence.....	4
Greene.....	1	Suffolk.....	1
Hamilton.....	2	Sullivan.....	5
Montgomery.....	10	Ulster.....	8
New York.....	140	Warren.....	3
Orange.....	2	Washington.....	13
Rensselaer.....	11	Westchester.....	3
			<hr/>
			272
			<hr/>

TABLE No. 3.

Crimes for which committed.

1. *Against person.*

Abduction.....	1	Murder.....	5
Abortion.....	1	Rape.....	11
Assault.....	35	Sodomy.....	2
Bigamy.....	3		<hr/>
Manslaughter.....	5		64
Mayhem.....	1		<hr/>

2. *Against property.*

Arson	4	Larceny	8
Burglary	76	Receiving stolen goods	5
Forgery	3		
Grand larceny	91		<u>187</u>

3. *Against person and property.*

Perjury	2
Robbery	19
	<u>21</u>

RECAPITULATION.

Against person	64
Against property	187
Against person and property	21
	<u>272</u>

TABLE No. 4.

Terms of sentence.

Less than two years	26
Two years and less than five	135
Five years and less than ten	73
Five years and fine of \$250	2
Ten years and less than fifteen	18
Fifteen years and less than twenty	11
Twenty years and less than thirty	2
Life	5
	<u>272</u>

TABLE No. 5.

Occupation.

Artist	1	Boilermaker	1
Book-keeper	1	Brewer	1
Blacksmiths	3	Carpenters	6
Baker	1	Cigarmakers	4
Bartenders	2	Cooks	7
Brushmakers	2	Cooper	1
Butchers	7	Coachman	1
Bricklayers	5	Druggist	1
Barbers	3	Engineer	1
Basketmakers	2	Farmers	13

Fireman	1	Piano-hammer maker	1
Fruit dealer	1	Railroad man	1
Gardener	1	Railmaker	1
Harnessmakers	2	Stove polishers	2
Hatter	1	Steam fitters	2
Iron worker	1	Sawyer	1
Knitter	1	Sand buffer	1
Laborers	131	Sailors	5
Lawyer	1	Shoemakers	4
Livery-stable man	1	Scoopmaker	1
Machinists	2	Stocking maker	1
Moulders	3	Salesman	1
Mason	1	Springmaker	1
Matmaker	1	Stonecutters	2
Miner	1	Teacher	1
Musician	1	Tailor	1
Oysterman	1	Upholsterer	1
Printers	3	Waiters	6
Peddler	1	Whipmaker	1
Plumbers	3	Wheelwright	1
Painters	9		
Preacher	1		272
Pocketbook maker	1		

TABLE No. 6.

Ages when convicted.

15 years and less than 20..	27	45 years and less than 50..	10
20 years and less than 25..	88	50 years and less than 60..	10
25 years and less than 30..	52	60 years and less than 70..	4
30 years and less than 35..	37	75 years	1
35 years and less than 40..	23		
40 years and less than 45..	20		272

TABLE No. 7.

*Showing nativity.**Natives.*

Connecticut	1	North Carolina	1
Florida	1	Ohio	1
Georgia	1	Pennsylvania	5
Indiana	1	Rhode Island	1
Illinois	1	South Carolina	1
Kentucky	2	Texas	2
Louisiana	2	Virginia	1
Massachusetts	7	Vermont	2
Maryland	2	West Virginia	1
New York	175		
New Jersey	3		211

Foreigners.

Canada	7	Ireland	21
Denmark	1	Italy	5
England	6	South America	1
Egypt	1	Sweden	3
France	1	West Indies ..	1
Germany	14		
			<hr/>
			61
			<hr/>

RECAPITULATION.

Natives	211
Foreigners	61
	<hr/>
Total	272
	<hr/>

TABLE No. 8.

Showing degree of education.

Read and write	222
Read only	13
No education	37
	<hr/>
	272
	<hr/>

TABLE No. 9.

Habits in use of stimulants.

Temperate ...	59
Moderate	125
Intemperate	88
	<hr/>
	272
	<hr/>

Use tobacco	247
Do not use tobacco	25
	<hr/>
	272
	<hr/>

TABLE No. 10.

Those who have been in State prison before.

Once	47
Twice	15

Three times	6
Four times	1
Six times	1
	<hr/>

Those who have been in county prison before.

Once	32
Twice	13
Four times	2
Five times	2
	<hr/>

TABLE No. 11.

Employed or idle when arrested.

Employed	162
Idle	110
	<hr/>
	272
	<hr/>

I do hereby declare that the above report is as accurate as I have the means of making it.

J. W. McILWAINE,
Chaplain, Clinton Prison.

Subscribed and sworn before me, {
this 4th day of October, 1884. }
C. E. MARTIN,
Clerk.

TWENTY-FIFTH ANNUAL REPORT

OF THE

MEDICAL SUPERINTENDENT

OF THE

STATE ASYLUM FOR INSANE CRIMINALS,

AUBURN, N. Y.,

For the year ending September 30, 1884.

OFFICERS OF THE ASYLUM.

MANAGER.

HON. ISAAC V. BAKER, JR.,
Superintendent of State Prisons.

RESIDENT OFFICERS.

CARLOS F. MACDONALD, M. D.,
Medical Superintendent.

THOMAS L. WELLS, M. D.,
Assistant Physician.

H. G. BLANDING,
Steward.

[NON-RESIDENT.

REV. WILLIAM SEARLS,
Chaplain.

REPORT.

HON. ISAAC V. BAKER, JR., *Superintendent of Prisons* :

SIR — I have the honor to submit the twenty-fifth annual report (my eighth) of the New York State Asylum for Insane Criminals, for the fiscal year ending September 30, 1884.

The movements of the asylum population during the year were as follows :

	Men.	Women.	Total.
Number of patients October 1, 1883.....	138	9	147
Admitted during the year.....	50	2	52
	-----	-----	-----
Total number treated.....	188	11	199
Discharged during the year.....	41	4	45
	-----	-----	-----
Remaining September 30, 1884.....	147	7	154
	=====	=====	=====

Average daily population, $152\frac{212}{365}$.

CONDITION OF THOSE DISCHARGED.

	Men.	Women.	Total.
Recovered	15	2	17
Improved	3	1	4
Unimproved	19	1	20
Not insane.....	2	...	2
Died.....	2	....	2
	-----	-----	-----
Total discharged.....	41	4	45
	=====	=====	=====

The number admitted exceeds that of any previous year since the opening year of the asylum, when it reached 55.

Of those admitted, 17 were from Auburn prison, 13 from Sing Sing prison, 4 from Clinton prison, 7 from the New York city penitentiary, 2 from the Onondaga county penitentiary, 1 from the State reformatory, 2 from the Rockland county jail, 1 from the Albany county jail, and 5 from the Utica asylum.

Of those discharged recovered, twelve were transferred to Auburn prison, one was returned to the Onondaga county penitentiary, two

were liberated after expiration of sentence, one was removed by friends, and one escaped.

Of those discharged improved, two were transferred to the custody of the commissioners of charities and correction, New York city, one was removed by friends, on bond, and one escaped.

Of those discharged unimproved, ten were transferred to the custody of the commissioners of charities and correction, New York city, eight were delivered to county superintendents of the poor, one was sent home to England by the Secretary of the State Board of Charities, and one was removed by friends, having been pardoned.

The two patients discharged as not insane were transferred to Auburn prison, both having been received from Sing Sing prison.

Of the two deaths that occurred, one was due to exhaustion from epilepsy and pulmonary consumption, after a residence of thirteen years in the asylum, and one was the result of suicide by hanging, being the first instance of suicide in twelve years, and the fourth since the opening of the asylum. The patient, a man, was hopefully anticipating his release at the close of his term of sentence, which had almost expired, and had exhibited no suicidal tendency. He hung himself by means of a pair of suspenders which he concealed in his room and attached to the iron guard of the transom above his room door. The night-watchman, on making his hourly round at three o'clock, A. M., discovered the body thus suspended and, cutting it down immediately, promptly summoned the assistant medical officer, who as promptly responded, but only to find that life was extinct. The county coroner was summoned and, after duly investigating the circumstances in the case, rendered a decision in accordance therewith, exonerating the asylum from all blame.

The percentage of recoveries for the year was 8.04+ of the whole number treated, and 11.14 of the average daily population, being, for the latter, a little above that of last year.

The percentage of deaths was 1.005+ of the whole number treated and 1.31 of the average daily population, being a fraction less than that of the previous year, which was also remarkably low.

There have been five attempts to escape, two of which have thus far proved successful, the patients being still at large. One of them was a partly demented, life convict, and the other an unconvicted patient, who was confined here on the order of a court, and was considered to be mentally recovered at the time of his escape.

In connection with the subject of escapes may be mentioned an incident of a somewhat unusual nature, which occurred during the past month, namely, that of an attendant leaving the service of the asylum, clandestinely, in the night-time, and taking a convict patient with him. It appears that the patient induced the attendant to aid his escape under a promise of a pecuniary reward, which he alleged he could obtain on reaching his home in New York city, whither the attendant was to accompany him. The attendant, William Hall, *alias* Owen Wankey, *alias* Richard Kilroy, had but recently entered the service of the asylum, having, in accordance with the Civil Ser-

vice rules, submitted testimonials as to competency and moral character, which testimonials were subsequently discovered to be forgeries. An offer of \$100 reward, for their arrest and return, together with a minute description of the elopers, was published in the local press, and resulted in their capture within forty-eight hours from the time of departure. The attendant is now in the county jail awaiting trial under three separate criminal charges, namely, aiding and abetting the escape of a felon; obtaining a position of trust in the public service by means of fraudulent testimonials, and grand larceny of clothing, etc., which he stole from a fellow-attendant on leaving the asylum.*

The usual statistical tables, compiled by Dr. Wells, together with the chaplain's report, and minutes of inspections made by the State Commissioner in Lunacy, will be found in the appendix.

The condition of the patients, generally, has continued substantially the same as in the preceding year. Aside from mental maladies, there has been but little serious illness among the inmates, and none of an epidemic or contagious character. It is also a source of gratification, that aside from the suicide above referred to, no untoward injury or accident has occurred. No patient has been subjected to mechanical restraint of any form, while instances of seclusion, or the use of narcotic drugs, as substitutes for restraint, have been of rare occurrence; the daily average amount of seclusion for the year having been but *a trifle over one-quarter of one per cent of the average daily population*, as against one-half of one per cent for the preceding year. In fact, there have been continuous periods of nearly two months during which not a single instance of seclusion has occurred. Tendencies to violence on the part of patients have greatly diminished since the total and final abolition of mechanical restraint, two and a half years ago, while that which was known as the "refractory" ward, under the system of chains, shackles, handcuffs, camisoles, muffs, wristlets and "crib" beds, formerly in vogue here, and which, subsequently, under the milder forms of these restraints, then deemed necessary, was called the "disturbed" ward, has gradually changed in character until now it may justly be classed as a "quiet" ward, although still occupied by our "worst" and most troublesome cases.

It would seem that the question of mechanical restraint in the treatment of the insane, regarding the propriety of which there has been so much discussion, and even bitter controversy, is rapidly settling itself, and that the disuse of restraint may reasonably be predicted, in the near future, in every well-regulated hospital for the insane. In this asylum we no longer even think of using it. In fact, a majority of our present corps of attendants have but little or no idea of its mechanism, and would be at a loss to know how to apply it were it placed in their hands for that purpose. In

* The attendant, whose real name is Richard Kilroy, has since been convicted, by confession of aiding the escape of a felon, and is now serving a term of five years imprisonment in Auburn Prison.

the light of such experience, candor compels the admission that, whereas, I formerly thought mechanical restraint almost a *sine qua non* in the treatment of a certain class of cases, and so advocated, I now not only regard it as unnecessary, but sincerely believe that such cases may be managed far better and easier without it.

It has been said, in defense of restraint, that American superintendents are obliged to resort to it because of a greater degree of turbulence manifested by the insane of this country as compared with that of Great Britain where, owing to an alleged national difference in temperament, insanity assumes a quieter and less violent type; that, given similar conditions, as regards their mental manifestations, any intelligent American superintendent would manage his patients without restraint. This seems plausible, and formerly I accepted it as furnishing a rational and satisfactory explanation of the difference in practice between the two countries in the matter of mechanical restraint; but the marked change in the demeanor of patients, which I have witnessed here, as a result of an impartial trial of the non-restraint system, has led me to regard the explanation as fallacious. Under the old system, as formerly practiced here, could be seen to an extreme degree the manifestations of violence, noise and confusion, which have been characterized as the "American type of insanity," while under the present methods the ordinary condition of all the wards is one of marked order and quietude, and it may now be said that the prevalent type of insanity here is similar to that described as existing in the British asylums. Our "disturbed" ward has faded out, so to speak, and its departure has been followed by a gradual extension of the means and methods of occupation, embracing agricultural labor, the manufacture and repair of all shoes and slippers used by the patients, of all clothing, excepting stockings—our tailor shop being manned entirely by patients; also the manufacture of tinware, as well as glazing, carpentry, painting, etc. With these facts before us, is not the inference a fair one, that the "quiet type of lunacy" found in British asylums is a *result* rather than a *cause* of non-restraint? Observations made during my visit abroad last year forced upon me the conviction that, in this respect at least, our English brethren are in advance of some of us on this side of the water. But already there are numerous indications of the commencement of a new era in the care and treatment of the insane in this country, and it may safely be predicted that the not distant future will witness a marked modification in the form of construction, organization and methods of conducting our hospitals for the insane. Even now, the most ardent advocates of the old system, still more or less prevalent, are, unconsciously perhaps, gradually diminishing the amount of restraint used, and otherwise modifying their practice, in accordance with the spirit of progress which now obtains.

I am well aware that the ground here taken, regarding the question of restraint, is opposed to that occupied by a considerable number of my professional brethren, some of whom are veterans in

the field of lunacy, and whose opinions are entitled to great respect ; yet it seems to me that, given suitable attendants whose sympathies and training are in that direction, any superintendent who will make a fair, thorough and impartial trial of non-restraint in the management of his patients cannot fail to be favorably convinced, even though it be "against his will."

HISTORICAL.

In view of an apparently growing interest in the subject of the care and management of the criminal insane, as evinced by the increasing frequency of requests, reaching me from official and other sources, for information respecting the organization and methods of administration of this institution, which is, as yet, so far as I am aware, the only one of its kind in the United States, it has occurred to me that it might serve a useful purpose to embody in this report, which closes the twenty-fifth year of the asylum's existence, a brief outline of its origin, construction, the objects of its establishment, and the results accomplished during the quarter of a century that it has been in operation.

Prior to the year 1855, insane convicts were either detained in the prisons or sent for treatment to the State lunatic asylum at Utica, to both of which courses there were serious and well-grounded objections ; namely, on the one hand, that the cells of a prison were improper places for the custody and treatment of insane persons, and on the other, that it was unjust to compel the inmates of ordinary asylums to associate with criminals.

By an act of the Legislature, passed in April, 1855, the Board of State Prison Inspectors, under whose management the New York State prisons then were, "was authorized and required, without delay, to make the necessary and suitable provisions in one of the State prisons of this State, and the removal* to such place for safe-keeping and proper care, all the insane convicts now in the State lunatic asylum at Utica, and whenever the physician of a State prison shall duly report to the warden of such prison that any convict confined therein is so far insane as to render him dangerous or an improper subject of prison discipline, it shall be the duty of said warden to remove such convict to the place so provided, and the officers having charge of such place shall receive such convict and retain him there at the expense of the State so long as he or she shall continue insane." From lack of appropriation of funds to carry out its provisions, this act was inoperative until 1857, when the Legislature appropriated for the purpose \$20,000, "or so much thereof as shall be necessary to complete the same," but repealed so much of the act of 1855 as referred to female insane convicts, requiring that they "shall continue to be sent to the State lunatic asylum as heretofore." This act also directed that the money should "be expended on the grounds occupied by the State prison at Auburn."

* So in the original, C. F. M.

The fact that the term *asylum* does not appear in either of the acts referred to, and that they contain nothing regarding the character of the provisions directed to be made, renders it doubtful if the Legislature, at that time, contemplated more than the provision of a simple annex or insane department in connection with the prison, as many persons still erroneously suppose this asylum to be. Fortunately, however, the vague and indefinite language of the acts left the matter, except as regards location, to the discretion of the inspectors, who set apart about eight acres of State land lying just outside the prison grounds proper, and separated therefrom by a high stone wall, and proceeded to erect thereon an institution which should be separate from, and in its operations independent of, the prison. The fact that the building itself, notwithstanding certain irremedial structural defects, is to-day so well adapted to the purposes for which it was intended, reflects the wisdom of its designers, who, at the time of its erection, twenty-five years ago, must of necessity have lacked the light which subsequent experience has furnished to guide them in determining as to the kind of provision that would best meet the requirements of the criminal insane. The one great mistake was made by the Legislature in not locating the asylum on a farm, an error which it is to be hoped some future Legislature will rectify.

The original structure was commenced in 1857, and was designed to accommodate eighty patients. In 1858 the Legislature passed an act "to organize the State Lunatic Asylum for Insane Convicts," vesting the management of the institution in the then Board of State Prison Inspectors, who were empowered to appoint a medical superintendent and other necessary employees, and to adopt such rules and regulations as they might deem necessary for the government of the asylum; also to commit insane convicts to the institution from the several State prisons, upon the certificate of a prison physician.

The asylum building is substantial and imposing in appearance, although its style of architecture is plain. The walls of the north front are of dressed, native, gray limestone, crowned with a heavy brick cornice colored in harmony with the stone work. The plain surfaces of these walls are relieved, on the wings, by a luxurious growth of English ivy, with which they are now almost entirely covered, its dense continuity on the lower story being broken only by the window openings, and which imparts to this front a quite picturesque appearance. The rear walls are of brick with native, gray limestone dressings to the window openings and string courses, and crowned with cornices similar to those of the north front. The main building consists of a central portion, 44 by 66 feet north and south, with wings adjoining on the east and west, 125 feet in length, and terminating in a transept 66 by 25 feet north and south. The central building consists of three stories and basement. The first story contains the medical office, superintendent's office, dispensary and reception-room; the second and third stories, the superintendent's dwelling apartments, and

the basement, a visiting and receiving office, mortuary, superintendent's kitchen and store-rooms. The wings are each two stories of twelve and thirteen feet elevation, respectively; each story constitutes a ward, consisting of a corridor or hall, twelve feet wide and extending the entire length of the wing, with bed-rooms opening therefrom on the north side, while on the south side, opposite each bed-room, is an outside window. These halls are used as day-rooms, to which purpose they are fairly well adapted. The bed-rooms are about eight by ten feet, and are well ventilated and amply lighted, each having a large window overlooking the lawn and flower garden. There are also in each ward a dining-room, bath-room, lavatory and water-closet, and attendants' room. The interior wood-work of the wards is principally pine, painted in neutral colors; the walls are also painted in cheerful tints and adorned with pictures. The furniture consists of heavy, comfortable arm chairs, of unique design in oak and maple, with here and there a settee of similar pattern, also reading tables. The bedsteads are of hard maple and substantially made; the beds are of husks and straw, and supplied with sheets, pillows, gray woolen blankets and white counterpanes. No article of furniture is fastened to the floor in any of the wards, nor are there any cells in the building. The corridor floors, and nearly all of those in the sleeping apartments, are of hard wood—maple and cherry—and are kept polished. The bath-room and lavatory floors are laid in encaustic tiling. In the corridors are song birds in cages, and the window sills are filled with pots of flowering and foliage plants; the windows are relieved by tinted shades which, together with the ample supply of light and sunshine, lend a cheerful aspect to the interior of the wards. All of the ward windows are guarded by heavy wrought-iron guards. The basements underneath the ward corridors are not occupied, but serve as passage-ways and contain the radiators for warming the wards, and pipes for distributing gas, steam and water.

An additional wing, three stories high and having accommodations for 80 patients, was commenced in 1873 and completed in 1876. This connects, at a right angle with the western extremity of the original building and fronts to the west. It is 135 feet in length and terminates in a transept 90x16 feet. Exteriorly the "new" wing is nearly similar in style of architecture to that of the original structure, but varies from it in its interior arrangement and finish, the wood-work of the first story being hard finished, in pine, and that of the second and third in oak. The main corridors are thirteen feet wide and centrally located, with bed-rooms opening therefrom on either side. Midway down the corridor, in each story, is a recess and bay-window, on one side, containing chairs and a table for games, reading, etc. At the far end of the hall is another bay-window, which is filled with plants and ornamental shrubbery, and inclosed, in the third story, by a wire gate about four feet high. In the second story this space is not inclosed, and contains, in addi-

tion to the plants and flowers, a small fountain and aquarium of gold fish.

The first, or ground story, comprises a ward for the regular working patients, a shoe-shop and apartments for certain subordinate employees. The second story is set apart for an intermediate grade of patients, while the third is occupied by the most troublesome and vicious class. The second and third stories have, respectively, six seclusion-rooms, which differ from the ordinary bed-rooms only in the matter of inside window shutters, which can be locked ; also the walls and ceilings of two of those in the upper story, one in each transept, are lined with ash ceiling. The accessory rooms, furniture, etc., of the "new wing" are similar to those in the old wards.

In the rear of the center building, and connected to it by an inclosed corridor, is a three-storied, brick structure — the third story having been added the past year — 98x40 feet, north and south, which contains officers' and servants' quarters, chapel and amusement hall, associate dining-room for patients and subordinate employees, officers' dining-room, tailor-shop, store-rooms, main kitchen, bakery, vegetable cellars, etc., all of which are described, in another portion of this report, under the head of improvements.

The outbuildings of the establishment are mostly of brick, and comprise a laundry, carpentering, plumbing and blacksmithing-shops, boiler-house, carriage-house, ice-house, green-house, stables and piggery. The grounds are tastefully laid out in walks, flower-beds, lawn, shrubbery and shade and fruit trees. There are also two small airing courts, or play-grounds, one for either sex, and nearly five acres of productive fruit and vegetable garden.

Up to 1869 the asylum could receive, under existing statutes, only *male* convicts from the *State* prisons and the State Lunatic Asylum at Utica. Subsequent acts and amendments, however, have extended the scope of its usefulness by providing for the admission of insane convicts of both sexes from all the penal institutions in the State, including three State prisons, six county penitentiaries and the State reformatory. The corporate title of the institution was also changed in 1869 to that of "State Asylum for Insane Criminals," in order to provide for the admission of an additional class, namely, "insane criminals," that is, persons charged with crime, but who escape trial or conviction, on the ground of insanity — the term "criminal," as here applied, being used in contradistinction to that of *convict*. Criminal patients are now received directly from the courts, and by transfer from the other *State* asylums, on the order of a justice of the Supreme Court.

The methods of discharging patients from the asylum vary according to their legal status, and are as follows: Convicts received from a *State* prison are, on recovery, transferred to Auburn prison. If received from the State reformatory or a county penitentiary, they are returned to the institution whence they came. Convicts recovering *after* expiration of their term of imprisonment are liberated. Convicts continuing insane beyond the period for which they were

sentenced to prison are detained if considered dangerous or likely to be benefited by future treatment in the asylum. If regarded as incurable and harmless, they may be discharged to the custody of the superintendents of the poor of the county of their conviction, or they may, with the approval of the State Commissioner in Lunacy, be removed by relatives or friends, who shall file with the medical superintendent of the asylum a bond with sureties, approved by a county judge, for their "peaceable behavior, safe custody and comfortable maintenance without further public charge." "Criminal" patients, on recovery, if under indictment, may be returned to the custody of the court on whose order they were received, to be put upon trial or otherwise disposed of; if acquitted of crime upon the ground of insanity, they can only be discharged upon the order of a justice of the Supreme Court of the judicial district in which the asylum is located, based upon a certificate of recovery signed by the medical superintendent and approved by the State Commissioner in Lunacy. Patients of either class found to be *not insane* are disposed of in the same manner as though recovered.

The purposes for which the asylum was created are three-fold, namely: the protection of society; the relieving of the inmates of ordinary asylums from association with criminals, and the securing for the insane of the criminal class appropriate care, treatment in a regularly organized and equipped hospital for the insane.

In the early period of its existence the asylum appears to have had its welfare and usefulness somewhat circumscribed by the intervention of partisan influences in its management; but for the eight or nine years last past it, fortunately, has enjoyed a complete immunity from such influences, and particularly since the adoption, in 1876, of the constitutional amendment, whereby the Board of Inspectors was abolished and the office of Superintendent of State Prisons, under whose control the asylum now is, created in its stead. The policy of the present management aims to conduct the business affairs of the institution upon a business basis, selecting its employees with reference only to their fitness, and in accordance with the civil service rules of the State, and making their tenure of office dependent wholly upon competency and fidelity in the discharge of duty; also, in the treatment of patients, to apply, so far as is consistent with the facilities at command, the most approved medical and moral methods which modern medical science has suggested.

Since the asylum was opened, February 2, 1859, 718 patients — 685 men and 33 women — have been admitted, and 564 — 538 men and 26 women — have been discharged. Of those admitted, 653 — 627 men and 26 women — were convicts, and 65 — 58 men and 7 women — were "criminals" or unconvicted. Of those discharged there were 199 recovered, 76 improved, 142 unimproved, 80 died, 61 not insane, and 6 whose condition when discharged was not recorded.

In response to recommendations made in former reports, the Legislature of this year revised the organic law of the asylum, in several

important respects, and also amended the general lunacy statutes in regard to the disposition of "criminal" lunatics. As these acts together contain nearly every thing of importance in the line of legislation bearing upon this institution, they are here transcribed.

CHAP. 289.

AN ACT in relation to the management of the State Asylum for Insane Criminals at Auburn, and the care and custody of the inmates thereof.

PASSED May 13, 1884; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. The building erected at Auburn for an asylum shall be known as the State Asylum for Insane Criminals.

§ 2. The Superintendent of State Prisons shall appoint a medical superintendent for the said asylum, who shall be a well-educated physician, of experience in the treatment of the insane. He shall also appoint, upon the nomination of the medical superintendent, an assistant physician, who shall be a well-educated physician, a steward and matron, all of whom, together with the medical superintendent, shall reside in the asylum, and shall be designated the resident officers thereof.

§ 3. The medical superintendent shall also be the treasurer of the asylum. He shall file in the office of the Comptroller of the State a bond in the penal sum of \$10,000, conditioned for the faithful performance of his trust as such treasurer, which bond, before it shall be filed, shall be approved by the Superintendent of State Prisons. The medical superintendent shall have the custody of all moneys and all securities and obligations belonging to the asylum. He shall open with one of the banks in Auburn, to be selected with the approbation of the Comptroller of the State, an account in his own name as medical superintendent of the asylum, and shall deposit all moneys, immediately upon receiving them, in said bank, and shall draw for the same only for the uses of the asylum and in the manner prescribed by the by-laws, upon the written order of the steward specifying the object of payment. He shall keep full and accurate accounts of receipts and payments in the manner directed in the by-laws, and such other accounts as the Superintendent of State Prisons shall prescribe, and he shall balance all the accounts on his books, annually, on the thirtieth day of September of each year, and make a statement of the balances thereon, and an abstract of the receipts and payments for the past year, which he shall, within five days thereafter, deliver to the Superintendent of State Prisons, and his books and vouchers shall at all times be open to the inspection of the Superintendent of State Prisons. He shall further render an account of the state of his books and of the funds and other prop-

erty in his custody, whenever required to do so by the Superintendent of State Prisons.

§ 4. The Superintendent of State Prisons shall, from time to time, determine the annual salaries and allowances of the resident officers of the said asylum, provided that such salaries do not exceed, in the aggregate, the sum of \$6,000 for any one year. The salaries of the resident officers of the asylum shall be paid quarterly, on the first days of January, April, July and October in each year, by the Treasurer of the State, on the warrant of the Comptroller, out of any moneys in the treasury not otherwise appropriated, to the medical superintendent of the asylum, on his presenting a bill of particulars, signed by the steward and certified by the medical superintendent. The resident officers of the asylum, before entering on their respective duties, shall personally take the oath prescribed in section one, article twelve of the Constitution of the State, and such oath shall be filed with the clerk of the county of Cayuga.

§ 5. The medical superintendent shall be the chief executive officer of the asylum, and shall have the general superintendence of the buildings and grounds, together with their furniture, fixtures and stock, and the direction and control of all persons therein, subject to such rules and regulations as shall be adopted by the Superintendent of State Prisons and approved by the State Commissioner in Lunacy, with power to assign them their respective duties ; also to appoint such and so many attendants and other subordinate employees as he may think proper and necessary for the economical and efficient administration of the affairs of the asylum, and to prescribe their several duties and places, and to fix, with the approval of the Superintendent of State Prisons, their compensation, and to discharge any of them at his sole discretion ; but in every case of discharge so occurring he shall forthwith enter the same, with the reasons therefor, under an appropriate heading, in one of the record books of the, asylum. He shall also, from time to time, give such orders and instructions as he may judge best calculated to insure good conduct, fidelity and economy in every department of labor and expense ; and he is authorized and enjoined to maintain salutary discipline among all who are employed by the institution, and to enforce strict compliance with such instructions and uniform obedience to all the rules and regulations of the asylum. He shall further cause full and fair accounts and records of all his doings and of the entire business and operations of the institution to be kept regularly, from day to day, in books provided for that purpose, in the manner and to the extent prescribed in the by-laws ; and he shall see that all such accounts and records are fully made up to the last day of September in each year, and that the principal facts and results, with his report thereon, be presented to the Superintendent of State Prisons within thirty days thereafter. The assistant physician shall perform the duties and be subject to the responsibilities of the superintendent in his sickness or absence. The steward may personally purchase any supplies for the use of said asylum, but only in the name of the medical

superintendent, and in each instance by his direction, and not otherwise. He shall also perform the duties of book-keeper and clerk of said asylum.

§ 6. The medical superintendent shall cause an estimate to be made monthly, as is now provided by law, and subject to the same restrictions and conditions as in the case of the agents and wardens of State prisons, for all moneys necessary for the support and maintenance of said asylum, which may be required to supplement the deficiencies in the earnings thereof, which estimate shall be submitted to and examined by the Superintendent of State Prisons, who, if he is satisfied that the said estimate is correct, and that the articles named therein are actually needed for the support and maintenance of said asylum, shall certify to the same, and on production of said estimate so certified to the Comptroller, he shall draw his warrant on the State Treasurer for the amount of said estimate, and the State Treasurer shall pay the amount of said warrant to the medical superintendent of the asylum, out of any money in the treasury appropriated for the support of said asylum.

§ 7. The Superintendent of State Prisons shall have the power to remove any and all of the resident officers in said asylum, for cause, and no resident officer removed by the Superintendent of State Prisons shall be re-appointed to any position in said asylum.

§ 8. Whenever the physician of either of the State prisons or penitentiaries of the State, or of the State reformatory at Elmira, shall certify to any warden or other officer in charge, that any convict therein is insane, it shall be the duty of said warden, or other officer in charge, to make immediate and full examination into the condition of such convict, and if fully satisfied that he is insane, the said warden, or other officer in charge, where such convict is confined, shall forthwith cause such convict to be transferred to the Asylum for Insane Criminals, and to deliver him to the medical superintendent thereof, who is hereby required to receive him into said asylum and to retain him there until legally discharged, and it shall be the duty of said warden, or other officer in charge, before transferring such insane convict, to see that he is in a state of perfect bodily cleanliness, and is provided with a suit of clothing similar to that furnished to convicts on their discharge from prison.

§ 9. Whenever any convict in the Asylum for Insane Criminals, under and by virtue of this act, shall continue to be insane at the expiration of the term for which he was sentenced, he may be retained in said asylum until such time as in the judgment of the medical superintendent of said asylum he is a safe and proper subject to be returned to the care of the superintendents of the poor of the county wherein he was convicted, and the said superintendents of the poor are hereby required to receive such insane person under their charge. The medical superintendent of the said asylum, with the approval of the State Commissioner in Lunacy, shall discharge and deliver any patient whose sentence has expired, and who is still insane, to his relatives or friends, who will undertake with good and approved

sureties for his peaceable behavior, safe custody and comfortable maintenance, without further public charge, and the bond of such sureties shall be approved by a county judge.

§ 10. Whenever any convict who shall have been confined in said asylum as a lunatic shall have become restored to his right mind, and the medical superintendent shall so certify in writing, he shall forthwith be transferred to the Auburn State prison, and the agent and warden of said prison shall receive such convict into said prison, and shall in all respects treat such convict as if he had been originally sentenced to imprisonment in said prison, though said convict may have been conveyed to the said asylum from either of the other State prisons; but any convict received from a penitentiary, or from the State reformatory at Elmira, shall on recovery be returned to the same.

§ 11. Whenever any convict shall be transferred to the Asylum for Insane Criminals, the agent and warden, or other officer in charge of the prison, penitentiary or reformatory from which such convict is transferred, shall cause a correct copy of the original certificate of conviction of said convict to be filed in the office of said warden or other officer in charge, and shall deliver the original certificate to the medical superintendent of said asylum, and whenever any such convict shall be transferred to the Auburn State prison, or to a penitentiary, or the State reformatory, from said asylum, as hereinbefore provided, the said medical superintendent shall deliver to the agent and warden, or other officer in charge of said prison, penitentiary or State reformatory, such original certificate, which shall be filed in the clerk's office of the same.

§ 12. The medical superintendent of the asylum is hereby authorized to recover for the support of any patient therein chargeable, under the law, to either counties or penitentiaries, in an action to be brought in said medical superintendent's name as treasurer of the said Asylum for Insane Criminals, which action shall not abate by reason of his death or removal, against the county or penitentiary, for the maintenance of said patient, and judgment therein shall be rendered for such sum as shall be found due, together with interest from the time of the demand made.

§ 13. Nothing in this act shall be construed to affect the tenure of office of any of the present officers of the asylum.

§ 14. All acts or parts of acts inconsistent with or repugnant to the provisions of this act are hereby repealed.

§ 15. This act shall take effect immediately.

CHAP. 515.

AN ACT to amend chapter four hundred and forty-six of the laws of eighteen hundred and seventy-four, entitled "An act to revise and consolidate the statutes of the State relating to the care and custody of the insane; the management of the asylums for their treatment and safe-keeping, and the duties of the State Commissioner in Lunacy."

PASSED June 12, 1884; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section twenty-three of chapter four hundred and forty-six of the laws of eighteen hundred and seventy-four, entitled "An act to revise and consolidate the statutes of the State relating to the care and custody of the insane; the management of asylums for their treatment and safe-keeping, and the duties of the State Commissioner in Lunacy," is hereby amended so as to read as follows:

§ 23. Any person now or hereafter confined in any State lunatic asylum upon a criminal charge; and any person so confined by order of any court of this State, or by any other competent authority, who at the time of such commitment or confinement is under conviction for a crime, or who has been tried and acquitted thereof on the ground of insanity, may, by an order of a justice of the Supreme Court upon the application of any superintendent of an asylum, be transferred to the State Asylum for Insane Criminals at Auburn, after first giving ten days' notice in writing by mail of such application to the superintendent of the State Asylum for Insane Criminals at Auburn.

§ 2. Section thirty-two of said act is hereby amended so as to read as follows:

§ 32. Whenever any insane person in confinement under a criminal charge, or under a conviction for a crime, or who has been acquitted of crime on the ground of insanity, shall be committed as hereinbefore recited to any State lunatic asylum, or to the State Asylum for Insane Criminals at Auburn, the county in which such criminal charge arose, or such conviction or acquittal was had, shall defray all the expenses of such person while at such asylum, and the expense of returning him to such county; but the county may recover the amount so paid from his own estate, or from any relative, town, city or county that would have been bound by existing laws to provide for and maintain him elsewhere.

REPAIRS AND IMPROVEMENTS.

Since my last report the two old, steam boilers have been removed from their original position to a new site, thoroughly repaired and tested, provided with new fronts and patent grates, and re-set on a

line with the new boiler purchased last year, making, in all, a "battery" of three good boilers, the total capacity of which, it is believed, will be ample to meet the growing demands of the asylum for years to come.

The work of changing the method of warming the wards, from "direct" to "indirect" radiation, which was commenced last year, has been substantially completed. This involved the cutting of heating and ventilating flues, to a greater or less extent, in the division walls of all the wards, the removal of steam pipes and heating coils from the wards, and substituting therefor new, cast-iron, extended-surface radiators, arranged in groups, or blocks, at the base of the flues in the basement halls, where they are connected with the main steam-pipes, which have been largely renewed and entirely rearranged, in conformity with the low-pressure, gravity system, by means of which a steady and ample circulation of steam can be maintained with less than five pounds of pressure at the boilers, thus avoiding that strain upon the heating apparatus which was such a troublesome and costly feature of the old, high-pressure system, while, at the same time, the water of condensation can be returned directly to the boilers by simple gravity. The low-pressure, gravity system, conjoined with indirect radiation, combines both heating and ventilation, and is regarded by steam-heating experts and sanitarians as the most economical and hygienic method of warming hospitals, asylums, etc., that has yet been devised.

The perplexities and anxieties attending the work of securing the requisite number and capacity of heating and ventilating flues, by cutting channels in the interior walls, from basement to attic, were greatly increased by reason of the wards being occupied during its progress, necessitating constant vigilance on the part of both mechanics and attendants, to prevent homicidal patients and would-be escapers from obtaining tools or materials which could be used as weapons or implements of escape. Its accomplishment without accident or mishap in connection therewith, notwithstanding the condition of disorder, confusion and discomfort to which the household was subjected during a greater portion of the summer, is indeed a source of gratification.

A system of electric bells, with signal stations, seven in all, at the gates and in the center building, has been put in.

Extensive alterations have been made to the "rear center" building, embracing the addition of a third story, largely rebuilding the interior of the first and second stories, and increasing the capacity of the cellars underneath. These alterations are now nearly completed, and when finished will comprise, in the first story, a main kitchen, 38x38 feet; a bakery, 35x16 feet, with new brick oven, 13x16 feet; bread-room, 10x16 feet; and a cooling or refrigerator-room, 9x16 feet; all of which are connected together; also a general store-room, 26x16 feet, and a steward's dining-room, 10x16 feet, with pantry adjoining. The division walls of this story are all of brick, and the floors, excepting

in the store-room and steward's dining-room, are of encaustic tiling laid on brick arches supported by iron joists. The second story contains an associate dining-room for the patients and subordinate employees, about 60x38 feet, with connecting pantry, 12x20 feet, and dumb-waiter from the kitchen below; a tailor-shop, 30x16 feet, and three rooms for servants, averaging 9x16 feet. The dining-room and approaching hall-way are floored with hard maple, and the pantry with tiling; the latter also has two drying closets for dish-towls, etc., one on either side, recessed into the wall and terminating above in a flue, 20x20 inches, which leads up to and above the roof. The dining-room and pantry, also the bakery, kitchen and accessory rooms, are ceiled with corrugated iron, painted and relieved by mouldings which cover the joints. In the third story are quarters, with bath-room and closet attached, for the assistant physician and steward, a combined chapel and amusement-room, 50x38 feet, with a clear story, 16 feet wide, projecting five feet above the main roof; also two single apartments for the night watchman and night fireman, located at the far end of the chapel with a view to securing quietude for those employees during their hours for sleeping. At the south end of the chapel is a raised platform, 14x16 feet, with a reading desk for the chaplain, which can readily be removed whenever it is desired to use the platform as a rostrum or stage for musical and other entertainments for the inmates. The chapel is amply lighted by gothic windows in the side walls and clear story; the interior woodwork is pine, finished with Crockett's preservative; the walls are "rough" finished, with a view to staining when means will permit; the clear story and main roof are supported by bracketed, wooden columns; the ceiling is of corrugated iron, colored in Cobalt blue, and broken into panels by fluted and beaded wood mouldings. Altogether, the interior arrangement and finish, in their general effect, are pleasing and cheerful, although only plainness, durability and simplicity were aimed at.

The unsightly, wooden structure, which connected the rear center with the center building proper, has been taken down and replaced by a substantial brick building, the first story of which forms a connecting corridor or passage-way to the new dining-room and contains a stairway leading to the officers' quarters and chapel. The second story connects the chapel hall with the second story of the administration building.

The beneficial results of the foregoing improvements, both as regards increased efficiency in administration and the promotion of the comfort and convenience of the entire household, can scarcely be overestimated; while the establishment of an associate dining-room, and the removal of the main kitchen from its former objectionable location, immediately under the wards of the south-west wing, to new and commodious quarters in close proximity to the bakery, vegetable cellars and store-rooms, all of which are now desirably located under one roof, will enable us to provide additional accommodations for at least forty-five patients, thus increasing the capacity

of the institution to upwards of two hundred, and practically relieving, for the immediate present, our over-crowded condition.

RECEIPTS AND EXPENDITURES.

The following statement, compiled from the accounts of the steward, who is by law the book-keeper of the asylum, shows the receipts and disbursements for the year:

Receipts.

Balance on hand October 1, 1883.....	\$79 32	
Received from Comptroller, for current expenses.....	29,920 68	
	<hr/>	\$30,000 00
		<hr/> <hr/>

Expenditures.

Salaries of officers and pay of help.....	\$10,387 10	
Commissary supplies.....	9,766 36	
Printing and stationery.....	416 14	
Furniture.....	706 80	
Medical stores.....	306 16	
Clothing and bedding.....	1,270 39	
Building and repairs.....	2,010 48	
Fuel and lights.....	3,316 69	
Hay, grain and farming tools.....	591 69	
Discharged patients.....	311 44	
Miscellaneous.....	816 75	
Balance on hand October 1, 1884.....	100 00	
	<hr/>	\$30,000 00
		<hr/> <hr/>

Receipts.

From Comptroller, for repairs, improvements and betterments.....	\$12,898 31	
	<hr/>	

Expenditures.

Repairs, improvements and betterments..	\$9,832 69	
Balance on hand October 1, 1884.....	3,065 62	
	<hr/>	\$12,898 31
		<hr/> <hr/>

Receipts.

Received from counties for support of unconvicted patients.....	\$7,265 93	
Received from U. S. for support of U. S. convicts.....	1,587 96	
Received from sales of rags, bones, tallow, old iron, etc.....	105 16	
	<hr/>	\$8,959 '05
		<hr/> <hr/>

Expenditures.

Deposited in State treasury.....	\$1, 846 00	
Balance on hand October 1, 1884.....	7, 113 05	
	<hr/>	\$8, 959 05
		<hr/> <hr/>

RECAPITULATION.

Total amount received from all sources.....	\$51, 857 36
Total amount of expenditures.....	41, 578 69
	<hr/>
Total balance on hand October 1, 1884.....	\$10, 278 67
	<hr/> <hr/>

REQUIREMENTS.

I would again call attention to the urgent need of repairs to the west and south walls of the asylum grounds. The "patent stone" coping, put on to it about ten years ago, is fast going to decay, and portions of it have already fallen off. The walls themselves also require pointing throughout, in order to arrest the serious process of disintegration which they have been undergoing for several years past. The flag-stone sidewalk, on the street in front of the asylum, should be partly renewed and entirely relaid, and the stone-steps at the front gate need resetting. The interior walls of the wards require to be largely repainted, to efface the damage unavoidably done them in constructing and arranging the heating and ventilating flues, removing radiators, etc.; also, the ceilings in some portions of the wards require renewing. Before the former ward dining-rooms, now no longer needed for that purpose, can be utilized as dormitories, of which we are greatly in need, it will be necessary to supply them with suitable furniture. To do this, and to otherwise meet the demands of a steady increase in the number of inmates, we shall require about fifty new bedsteads and bedding and as many chairs, together with several additional dining-tables. As a further precautionary measure against fire, I would recommend an extension of the main water-pipe around the south-west wing of the building, and that two fire hydrants be placed at suitable points in that locality. The frame-work of the superstructure of the boiler-house should be lined inside with sheet iron, to protect it from fire and to render it comfortable for the firemen in cold weather. Several of the door frames and casings in the basement halls are decayed beyond repair, and should be renewed; the drying-room of the laundry should be fitted up with steam coils and sliding forms, and the floors of the wood-shed and piggeries relaid. The hot water generator is far too small for our present requirements, besides being worn out; a new and larger one should be provided.

An organ and piano are needed for the chapel and amusement hall, the former for religious services, and the latter for use at concerts, theatricals and other entertainments for the benefit of the

patients. We also need, for the diversion of patients, a magic lantern, with views, some inexpensive scenery and other stage properties, and a few additions to the library.

ACKNOWLEDGMENTS.

The following contributions for the benefit of the patients are thankfully acknowledged on their behalf: A package of miscellaneous books, pamphlets and illustrated papers from the New York office of the State Charities Aid Association; several parcels of German magazines and papers, from Mr. M. Stupp; a bag of oranges, candies, figs and crullers, for each patient on Christmas, 300 crullers and fifteen pounds of cheese, on the Fourth of July, and twenty-five water-melons, in August, from Mrs. MacDonald.

The usual religious services were conducted by our worthy chaplain, the Rev. William Searls, up to June last, when it became necessary to vacate the chapel for repairs. Chaplain Searls merits, and I believe has, the confidence and esteem of our entire household. The Rev. Fathers Mulhern, Seymour and Hickey, also the Sisters of Charity, are gratefully remembered for aid and comfort administered to the spiritual wants of our Catholic patients.

The asylum has been visited and inspected, officially, during the year, once by Hon. Alfred C. Chapin, State Comptroller, and four times by Dr. Stephen Smith, State Commissioner in Lunacy.

Dr. T. L. Wells was appointed assistant physician in May last, being the first instance in the State, of appointment to the office of asylum physician, under the civil service rules. During his connection with the institution, Dr. Wells has manifested ability, energy and a disposition to conscientiously discharge the duties assigned him. Mr. Blanding, steward, Mr. Grant, supervisor, and the attendants and other employees on duty at the present time, are justly entitled to commendation for faithfulness in the discharge of their respective duties.

In conclusion, I would express my grateful appreciation of the evidences of confidence which you have at all times evinced toward me, in regard to the methods of conducting the asylum under my charge.

CARLOS F. MACDONALD,
Medical Superintendent.

MINUTES OF VISITATIONS AND INSPECTIONS MADE BY THE STATE COMMISSIONER IN LUNACY.

STATE ASYLUM FOR INSANE CRIMINALS, }
AUBURN, N. Y., *May 31, 1884.* }

Arrived unannounced, and visited and inspected the asylum in company with Commissioner Craig of the State Board of Charities.

The medical superintendent absent on vacation. Dr. Wells, assistant physician, on duty. Population, 153.

The condition of the asylum is excellent; the buildings, out-buildings and grounds are in good order and well kept; the halls, dormitories, beds, etc., are very clean and the water-closets and plumbing are in good sanitary condition. In all the wards the patients are cleanly in person and clothing, and general order and quiet prevailed in even the "disturbed" and mixed wards. In company with the assistant physician, the commissioners inspected all the wards, talked with such patients as manifested the wish for a hearing, and made notes of such examinations from which extracts are taken and herewith given (omitting names), in the order in which the visits were made to the respective wards, as follows: Third ward (mixed), twenty-one patients; twenty beds; two attendants.

Q. A. (Chinaman), requested an interview, talked with him, and told him he should have a further hearing, which will be given at next visit.

G. S. claims he is not insane, and demands to be released. The records show that he was convicted of assault, and that he has auditory hallucinations, also delusions of persecution.

Sixth ward (mostly convalescents). Thirty-one patients; thirty beds; two attendants.

J. F. B. says that he is wrongfully confined; that he was illegally committed on *ex parte* affidavits that were false, and asks for legal counsel. This is the patient who killed the superintendent of the Canandaigua asylum while an inmate of that institution, and subsequently attempted to kill, by stabbing, an assistant physician at the State asylum at Utica. The Commissioner in Lunacy has heretofore, on several occasions, examined this case in detail, and is satisfied that he is legally committed and properly held.

A. G. (a German) says that he has served his time out; that he was sent to Clinton prison under a seven year sentence, for "cutting" his wife; was an inmate of the prison one year, and has been in the asylum five years and five months. He claims that he should be set at liberty. The medical officers regard him a proper subject for detention, on the ground that he is still insane and subject to periods of excitement, during which he is dangerous to those about him.

Seventh ward ("disturbed"). Twenty-nine patients; twenty-eight beds; three attendants; one attendant absent, only two on duty.

W. McL. has a bruise under right eye. He says he got into a fight with another patient, that one of the attendants, whom he calls "Siboe" (but whose name is Baker), pulled him off, and that as he came along the hall he, McL., struck another attendant. Being asked why he struck the other attendant who had not interfered with him, he said "I claim it was a delusion. These attendants then came and stamped upon me and kicked me, it was a week ago, I have no bruises on my body now, I had then." Dr. Wells represents that the matter

was immediately investigated ; that the patient was stripped and carefully examined, and no bruises or injuries were found, except the bruise under the eye ; and that one of the attendants (named Woodland) was dismissed by the medical superintendent, on the ground that he used more force than was necessary to control the patient.

M. O'B. has a black eye, and says he was struck by S. R., another patient.

E. T. complains that he was transferred here from Clinton prison "to be recruited up for six weeks and then discharged ;" that he has been kept here beyond the term of his sentence, and after recovery, at the instigation of G. T., Esq., of N. Y., his cousin, who has, during his confinement, succeeded in breaking a will made in his favor ; further examination of this patient discloses unmistakable evidence of his insane condition at this time. He claims that the doctors and attendants are continually trying to poison him—and that they have "stopped up" his bowels, "cut out" his kidneys, etc. The records show that his term of sentence has not yet expired ; also that he has made several murderous assaults, in one of which he severely stabbed an attendant.

J. S. says that he was transferred from Sing Sing prison five months ago, was there three and one-half months, under a three years' sentence for grand larceny, admits that he is not insane. Dr. Wells states that he overheard this man telling another patient how to feign insanity.

J. McK. says that he wishes to go back to Syracuse penitentiary and serve out his sentence ; says that he is not insane. He alleges that his blood was sucked in the penitentiary, and is sucked here, by "Vampires," who follow him about.

From the hall we proceeded to the dining-room, following the patients assembling for dinner. The *menu* consisted of corned beef, potatoes, spinach and good bread ; supplies appeared to be ample.

Fourth ward (mixed), twenty-one patients, twenty beds ; two attendants. Patients first seen in dining-room, where the supplies appeared to be the same in kind, quality and sufficiency as in the seventh ward.

R. C. says he was sentenced to Sing Sing prison, for life, in 1868, and was transferred here three years ago. An examination reveals insane delusions, that others are trying to poison him, or pretense to such delusions. He says he is not insane and wishes to be released.

H. S. (killed his two children, was declared insane on arraignment and committed to asylum by order of a court) says his folks "are across the way" and he wishes to go home to his children.

W. C. complains that he has recovered but is still confined.

Q. What are you here for ? A. I was sent here by the court.

Q. For what ? A. I cannot tell.

Q. What do people say you did? A. They say I did shoot a man.

Q. When did you become sane? A. I cannot tell.

Q. Are you the same now as when you came here? A. Yes.

Fifth ward. Occupied by working patients, all of whom are out at work. Twenty-three patients; twenty beds; two attendants, both of whom work out with the patients.

First ward (mixed). This ward belongs to the division for women, but is used for men. Twenty-one patients; twenty beds; two attendants.

P. L. claims that he is not insane and that he should be released; says he killed his wife, but did not know it. The records show that he had auditory hallucinations, imagines that he hears his wife's voice in the room over his head.

Second ward. This is the only ward for women. Seven patients (all cases of homicide); twenty-one beds; one attendant, assisted at meal time, etc., by two laundresses who room on the ward.

H. R. makes representations to show she is not insane and should be released. She is a life convict, and is known as the "veiled murderess," from the fact that she kept her face veiled during her trial, which occurred about thirty years ago. She has been an inmate of the asylum about eleven years. The records show that she has insane delusions.

M. A. D. (killed her three children) also thinks she is sane and should be released. Says she cannot tell when she became sane. The records show that she is subject to periods of maniacal disturbance, during which she reveals the existence of auditory and visual hallucinations, also delusions of persecution. She is not a convict.

L. L. K. says she has been an inmate nearly ten years; that she was accused of killing a man named C. G.; that she did not kill him and never saw him. She wants to get back to Kings county. The records show that she is under indictment for murder, and confined in the asylum on the order of the county judge of Kings county; also that she has various delusions; among others, that she is a great lawyer and has been admitted to the bar. The medical officers say she is gradually becoming demented.

(Signed) STEPHEN SMITH, M. D.,
State Commissioner in Lunacy.

STATE ASYLUM FOR INSANE CRIMINALS, }
AUBURN, N. Y., August 23 and 24, 1884. }

Spent two days visiting and inspecting the asylum. The following changes took place during the quarter ending June 30, 1884. Admitted, eleven; discharged, twelve; died, none; decrease, one. The patients admitted were convicted in the following counties: New York, seven; Onondaga, one; Erie, one; Chemung, two. They were sent to the asylum from the following prisons: Sing Sing, four; Auburn, four; New York city penitentiary, three. There were no elopements nor no accidents. The changes among the attendants

were as follows, viz.: Resigned, four; discharged, three. The following reasons were given for the discharges: Violation of rules, two; harshness to patients, one. The inspection extended to every part of the asylum. All of the patients were seen, and those admitted since my last visit were especially examined. The following notes were made in the several halls.

Hall one is occupied by men; number, twenty-one; attendants, two. The dormitories, beds, closets and bath-rooms were in good condition; the patients were all clean and well dressed. No one made complaint.

Hall two is devoted to women, of whom there are seven. The ward was in every respect in good order and the patients neatly dressed; one patient is recovering from an attack of sudden violence, during which she destroyed furniture. She is now quiet.

Hall three is occupied by men; number of patients, twenty-two; attendants, two. One third of the patients are men who work about the premises. The ward is in all parts in as good condition as the repairs going on would admit of. No complaints were made by patients.

Hall four is occupied by twenty-one patients and has two attendants. The rooms, beds and closets were in good order. One patient made many complaints about his food, but they were the same that I have several times investigated and found trivial.

Hall five, devoted to working patients, is also in good order.

Hall six has thirty-one patients and two attendants. Many of the patients work. Ward is in good order, and patients clean and well dressed. No complaints were made, except of wrongful detention.

Hall seven has twenty-nine male patients and three attendants. The patients are of the disturbed class. The ward is in good condition. One patient, John Joyce, complained of abusive treatment during the day, but on removing his clothing, no sign of injury could be discovered. I have examined him frequently for alleged injuries, but could never find any. He is very troublesome, and labors under the delusion that patients and attendants insult him continually. He has a slight spinal curvature, and points to the irregularities which this produces, as evidence of his injuries. Another patient repeated, with great vehemence, his former complaints of suffering from injuries to his bowels by things put in his food, as glass, etc.

The inspection was concluded by examining the records, the improvements, out-buildings and grounds. The records were found to be fully written up and in good order. The improvements, under special appropriation of the Legislature, are in progress and consist of the following: New boilers and heating apparatus, by which the method of heating the wards is changed from direct to indirect radiation — a very desirable and important change; adding one story to the rear center building and remodeling its interior, to provide a new kitchen, bakery, bread-room, tailor-shop, servants' rooms, a large associate dining-room for patients and employees, new chapel, officers' quarters, etc.

The work is being done in a substantial manner, and, when completed, will materially enhance the comfort of the inmates and the efficiency of the institution. All the unskilled labor is being done by patients, about twenty in all are thus engaged, carrying bricks and mortar, cleaning lath, handling lumber, digging, etc.

Visited the tailor-shop, where five male patients are at work, one being a professional tailor. These patients, with the aid of two sewing machines, manufacture all the clothing required by the institution, with the exception of socks. Another patient makes and repairs all the men's shoes and slippers, no paid help being employed either in the tailor or shoe-shops. Sixty patients were variously occupied outside of the wards at the time of my visit.

Several letters written by patients and detained by the superintendent were examined and their destruction authorized — the reason given for their detention being satisfactory; some of the letters were very incoherent, while others were addressed to the President of the United States, royal personages, etc. It is customary for the superintendent to examine all letters written by patients, as the latter sometimes try by this means to obtain from outsiders aid to escape. (Signed) STEPHEN SMITH, M. D.,

State Commissioner in Lunacy.

CHAPLAIN'S REPORT.

To the Hon. I. V. BAKER, *Superintendent of State Prisons:*

DEAR SIR — I beg leave to report to you the religious services I hold Sabbath afternoons in the State Asylum for Insane Criminals. The order of our services is the same as that of ordinary religious assemblies. They, of necessity, are characterized by simplicity and brevity. We have had for the past few months quite a vacation, during which time there has been built a beautiful and very convenient chapel. The old chapel was, and has been for years past, far too small. Its arrangements were so bad and its means of ventilation so poor, that in the heat of summer it was almost impossible to hold services in it. The new chapel is a fine model in form and in fixture, and is of sufficient capacity for all the inmates of the institution to attend, if desired. The superintendent and his associate officers and attendants join in these services, as well as the inmates who take part in singing, and manifest much interest in the same. We have the best of order; in fact as good order as ordinary congregations outside. The very able and worthy superintendent, Dr. MacDonald, is showing more and more his rare qualifications for the position he so ably fills. His care and ability manifest themselves in every department of the institution. The discipline is humane but firm, and the whole institution is worthy of an enlightened Christian people.

Most truly yours,

W. SEARLS,

Chaplain.

AUBURN, N. Y., October 1, 1884.

TABLE No. 1.

Showing the movements of patients during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

MOVEMENTS.	During the year.			Since the opening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Present Oct. 1, 1883.....	138	9	147	.....	.....	.....
Admitted.....	50	2	52	685	33	718
Whole number treated ...	188	11	199	685	33	718
Discharged recovered	15	2	17	190	9	199
Discharged improved ...	3	1	4	72	4	76
Discharged unimproved..	19	1	20	132	10	142
Discharged not insane ...	2	.....	2	61	.....	61
Discharged unrecorded...	.....	.....	.....	5	1	6
Died.....	2	.....	2	78	2	80
Remaining Sept. 30, 1884.	147	7	154	.....	.....	.....
Maximum number.....	149	7	156	.....	.....	.....
Minimum number.....	139	7	146	.....	.....	.....
Daily average .....	...	.....	152 $\frac{212}{365}$	.....	.....	.....
Total discharged .....	.....	.....	.....	.....	.....	564

TABLE No. 2.

Showing the monthly admissions, discharges and deaths during the year ending September 30, 1884.

MONTHS.	Admissions.			Discharges.			Deaths.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
October	6	..	6	2	2	4	..	..	..
November.....	9	1	10	3	..	3	..	..	..
December	2	1	3	6	..	6	..	..	..
January .....	..	..	..	1	1	2	..	..	..
February.....	5	..	5	3	..	3	1	..	1
March	4	..	4	3	1	4	1	..	1
April	1	..	1	1	..	1	..	..	..
May	3	..	3	3	..	3	..	..	..
June	7	..	7	8	..	8	..	..	..
July.....	5	..	5	1	..	1	..	..	..
August	4	..	4	6	..	6	..	..	..
September	4	..	4	4	..	4	..	..	..
Total	50	2	52	41	4	45	2	..	2

TABLE NO. 4.

Showing the ages of those admitted and of those discharged recovered, since the opening of the asylum, February 2, 1859.

YEARS.	Admitted.			Discharged recovered.		
	Men.	Women.	Total.	Men.	Women.	Total.
From ten to twenty.....	36	2	38	9	....	9
From twenty to thirty ...	343	17	360	103	8	111
From thirty to forty	156	7	163	42	1	43
From forty to fifty	78	5	83	20	....	20
From fifty to sixty.....	40	2	42	7	1	8
From sixty to seventy....	15	....	15	2	....	2
From seventy to eighty...	3	....	3	....	....	....
From eighty to ninety ...	1	....	1	....	....	....
Unascertained	13	....	13	6	....	6
Total	685	33	718	189	10	199

TABLE NO. 5.

Showing the nativity of those admitted during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

Nativity.	During year.	Since op'ng.	Nativity.	During year.	Since op'ng.
New York	28	310	Switzerland.....	..	5
Pennsylvania	1	13	France.....	1	4
Massachusetts	1	10	Italy .....	..	8
Connecticut .....	..	7	Spain.....	..	3
New Jersey.....	1	7	Austria	1	4
Vermont .....	..	4	Belgium .....	..	2
Virginia	2	8	Cuba .....	..	3
Maryland.....	..	4	China.....	..	2
Ohio .....	..	3	Bohemia .....	..	1
Georgia .....	..	2	Bavaria .....	..	1
Louisiana.....	..	3	Denmark.....	..	1
New Hampshire.....	..	2	Poland.....	..	1
Rhode Island .....	..	1	Holland .....	..	1
Illinois.....	..	1	Prussia.....	..	1
Michigan.....	..	1	Sweden .....	..	1
South Carolina.....	..	1	Sicily.....	..	1
District of Columbia.	..	3	Saxony .....	..	1
Ireland	8	140	Turkey .....	..	1
Germany.....	5	74	West Indies .....	..	1
England	1	34	Mexico .....	..	1
Canada.....	2	28	Malta.....	..	2
British India.....	..	1	Unascertained.....	..	11
British N. America ..	..	1			
Scotland	1	4	Total	52	781

TABLE No. 6.

Showing the residence, by counties, of those admitted during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

COUNTIES.	During the year.			Since the opening.		
	Men.	Wom n.	Total.	Men.	Women.	Total.
Albany	1	....	1	24	1	25
Allegany .....	....	....	....	3	....	3
Broome .....	....	....	....	2	....	2
Cattaraugus.....	1	....	1	8	....	8
Cayuga.....	....	....	....	4	....	4
Chautauqua.....	....	....	....	5	1	6
Chemung.....	1	....	1	10	1	11
Chenango.....	1	....	1	3	....	3
Clinton.....	....	....	....	3	....	3
Columbia .....	....	....	....	5	1	6
Cortland .....	....	....	....	2	....	2
Delaware.....	....	....	....	2	....	2
Dutchess.....	....	....	....	9	....	9
Erie	1	....	1	34	3	37
Essex .....	....	....	....	2	....	2
Franklin .....	....	....	....	2	....	2
Fulton .....	....	....	....	1	....	1
Genesee.....	1	....	1	6	....	6
Greene .....	....	....	....	2	....	2
Herkimer.....	....	....	....	6	....	6
Jefferson.....	....	....	....	12	....	12
Kings	1	....	1	25	2	27
Lewis .....	....	....	....	1	....	1
Livingston.....	....	....	....	1	....	1
Madison .....	....	....	....	4	....	4
Monroe.....	....	....	....	27	....	27
Montgomery .....	....	....	....	1	....	1
New York	26	1	27	267	16	283
Niagara	2	....	2	13	....	13
Oneida	2	....	2	18	....	18
Onondaga.....	3	1	4	14	1	15
Ontario.....	1	....	1	7	....	7
Orange .....	....	....	....	8	....	8
Oswego.....	1	....	1	6	....	6
Otsego .....	....	....	....	4	....	4
Putnam .....	....	....	....	1	....	1
Queens .....	....	....	....	18	2	20
Rensselaer	1	....	1	8	2	10

TABLE No. 6 —(Continued).

COUNTIES.	During the year.			Since the opening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Richmond .....	....	....	....	5	....	5
Rockland	2	....	2	8	....	8
St. Lawrence... ..	....	....	....	9	1	10
Saratoga .....	....	....	....	5	....	5
Schenectady .....	....	....	....	5	....	5
Schoharie.....	....	....	....	1	...	1
Schuyler.....	....	....	....	1	....	1
Steuben .....	....	....	....	2	1	3
Suffolk .....	....	....	....	5	....	5
Sullivan .....	....	....	....	3	....	3
Tioga .....	....	....	....	3	....	3
Tompkins	1	....	1	2	...	2
Ulster .....	....	....	....	10	....	10
Warren.....	....	....	....	1	....	1
Washington.....	1	...	1	6	....	6
Wayne	2	....	2	8	....	8
Westchester .....	...	....	....	32	1	33
Wyoming.....	....	....	....	2	....	2
District of Columbia .....	....	....	....	8	....	8
Florida .....	....	...	...	1	....	1
Total.....	50	2	52	685	33	718

TABLE No. 7.

Showing the civil condition of those admitted during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

CIVIL CONDITION.	During the year.			Since the opening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Single	34	1	35	464	15	479
Married	12	1	13	182	11	193
Widowed.....	4	....	4	15	4	19
Unascertained .....	....	....	....	24	3	27
Total	50	2	52	685	33	718

TABLE NO. 8.

Showing the degree of education of those admitted during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

DEGREE OF EDUCATION.	During the year.			Since the opening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Classical .....	.....	.....	.....	4	.....	4
Academic	1	.....	1	7	...	7
Common school	16	1	17	176	3	179
Read and write.....	23	.....	23	307	19	326
Read only	4	1	5	45	3	48
No education	6	.....	6	97	3	100
Unascertained .....	.....	.....	.....	49	5	54
Total	50	2	52	685	33	718

TABLE NO. 9.

Showing the habits of life of those admitted during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

HABITS.	During the year.			Since the opening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Temperate.....	6	2	8	151	11	162
Intemperate	30	.....	30	302	14	316
Moderate.....	14	.....	14	180	3	183
Unascertained....	.....	.....	.....	52	5	57
Total	50	2	52	685	33	718

TABLE No. 10.

Showing the occupation of those admitted during the year ending September 30, 1834, and since the opening of the asylum, February 2, 1859.

Occupation.	During year.	Since open'g.	Occupation.	During year.	Since open'g.
Auctioneers.....	...	1	Fishermen.....	1	1
Architects.....	...	1	Foundrymen.....	...	1
Agents.....	...	1	Furriers.....	1	1
Boxmakers.....	...	3	Gardeners.....	...	4
Bootblacks.....	...	1	Hatters ...	...	5
Blacksmiths.....	...	12	"Homeopathic physi-		
Book-keepers.....	...	9	cian".....	...	1
Barbers.....	1	8	Housekeepers.....	1	9
Bakers.....	1	8	Harness makers .....	...	2
Baggagemen ..	...	1	Horse jockies.....	...	1
Brewers .....	...	1	Hostlers.....	...	2
Bricklayers.....	...	1	Iron moulders .....	...	3
Boatmen .....	...	3	Iron puddlers.....	...	1
Barkeepers.....	3	8	Jewelers.....	...	3
Brushmakers.....	...	2	Locksmiths.....	...	2
Butchers.....	1	8	Laborers	11	142
Blacksmith helpers...	1	2	"Lutheran clergymen" .....	...	1
Boiler maker helpers. ....	...	1	Liquor dealers.....	...	2
Carmen .....	...	4	Merchants.....	...	6
Carpenters.....	1	24	Messengers .....	...	8
Clerks.....	2	12	Machinists.....	2	2
Coachmen .....	...	3	Masons.....	...	8
Collectors and report-			Miners.....	...	1
ers.....	...	2	Millers.....	...	1
Commissi'n merchants, .....	...	1	Marble cutters.....	...	1
Confectioners.....	...	2	Peddlers.....	1	6
Cooks.	3	10	Pump makers.....	...	1
Cabinet makers.....	...	10	Porters.....	...	4
Coopers .....	...	4	Painters.....	1	15
Copyists.....	...	2	Piano makers .....	...	1
Conductors	1	1	Prostitutes.....	1	3
Cigar makers.....	...	6	Printers.....	...	5
Cigar dealers.....	...	1	Plumbers.....	1	6
China packers.....	...	1	Plasterers.....	1	2
Chimney sweepers....	1	2	Real estate agents....	...	1
Dentists.....	...	1	School teachers.....	...	1
Drivers.....	1	4	Soldiers .....	...	4
Drovers.....	...	1	Seamstresses.....	...	3
Engineers .....	...	4	Sash and blind makers, .....	...	1
Expressmen.....	...	1	Shoemakers.....	1	34
Farmers.....	2	54	Stone cutters.....	...	7
File makers.....	...	1	Servants.....	...	4
Finishers.....	...	3	Sailors .....	...	20

TABLE 10 — (Continued.)

Occupation.	During year.	Since open'g.	Occupation.	During year.	Since open'g.
Tailors	1	24	Waiters	3	9
Tinsmiths		5	Weavers.....	1	2
Tanners		1	Wine makers.....		1
Teamsters		8	Watchmen.....		1
Telegraphers.....		2	Wood carvers	1	4
Tobacco rollers.....		1	Watch makers	1	1
Tramps.....		1	No occupation	5	89
Turners		1	Unascertained.....		33
Upholsterers		1			
Variety actors.....		2	Total	52	718

TABLE No. 11.

*Showing the form of mental disorder in those admitted during the year ending September 30, 1884, and since September 30, 1875.**

MENTAL DISORDER.	During the year.			Since September 30, 1875.		
	Men.	Women.	Total.	Men.	Women.	Total.
Melancholia.....	12	....	12	80	2	82
Mania, acute.....	13	1	14	58	2	60
Mania, sub-acute.....	2	....	2	14	....	14
Mania, chronic.....	7	1	8	62	5	67
Mania, periodic	1	....	1	10	2	12
Dementia	6	....	6	39	....	39
Epilepsy.....	....	....	....	4	1	5
Epilepsy with mania.....	1	....	1	3	....	3
Paresis.....	4	....	4	11	....	11
Imbecility	2	....	2	16	1	17
Not insane.....	2	....	2	32	1	33
Total	50	2	52	329	14	343

* The records of the asylum contain no reliable information regarding the form of mental disorder in those admitted prior to 1875.

TABLE No. 12.

Showing the alleged exciting causes in those admitted during the year ending September 30, 1884, and since September 30, 1875.

EXCITING CAUSES.	During the year.			Since September 30, 1875.		
	Men.	Women.	Total.	Men.	Women.	Total.
Blow on head	1	....	1	8	....	8
Confinement in prison ...	2	....	2	57	2	59
Chronic meningitis.....	....	....	....	2	....	2
Enormity of crime .....	....	....	....	1	1	2
Epilepsy .....	....	....	....	7	....	7
Fear of punishment .....	....	....	....	1	....	1
Fit of anger .....	....	....	....	1	....	1
Gun-shot injury to head..	....	....	....	1	....	1
Heart disease and mastur- bation .....	....	....	....	1	....	1
Heredity .....	....	....	....	9	....	9
Heredity and confinement	1	....	1	3	....	3
Intemperance	5	....	5	11	1	12
Intemperance and syphilis	....	....	....	1	....	1
Intemperance and venereal excess .....	....	....	....	1	....	1
Ill health .....	....	....	....	6	....	6
Ill health and remorse ...	....	....	....	1	...	1
Infidelity of wife .....	....	....	....	2	....	2
Imbecile .....	....	....	....	12	1	13
Masturbation	1	....	1	29	....	29
Masturbation and excess of tobacco .....	....	....	....	1	....	1
Noise of machinery.....	....	....	....	1	....	1
Opium eating.....	1	....	1	1	....	1
Paralysis .....	....	....	....	1	....	1
Phthisis	1	....	1	8	....	8
Seduction .....	....	....	....	1	1	2
Sunstroke .....	....	....	....	1	....	1
Uterine disease .....	....	....	....	....	1	1
Not insane	2	....	2	29	2	31
Unascertained	36	2	38	132	5	137
Total	50	2	52	329	14	343

TABLE NO. 13.

Showing the alleged duration of insanity previous to admission in those admitted during the year ending September 30, 1884, and since September 30, 1875.

DURATION OF INSANITY.	During the year.			Since Sept. 30, '75.		
	Men.	Women.	Total.	Men.	Women.	Total.
Under one month	13	..	13	68	2	70
One to three months.....	5	..	5	28	..	28
Three to six months.....	3	..	3	23	..	23
Six to nine months.....	..	..	..	14	..	14
Nine months to one year .....	..	..	..	1	..	1
One year to eighteen months.....	3	..	3	14	..	14
Eighteen months to two years... ..	..	..	..	1	..	1
Two to three years.....	1	..	1	5	..	5
Three to four years.....	1	..	1	4	..	4
Four to five years.....	..	..	..	..	..	..
Five to ten years	1	..	1	3	..	3
Ten to fifteen years.....	..	..	..	..	..	..
Fifteen to twenty years.....	..	..	..	..	..	..
Twenty to thirty years	1	..	1	1	..	1
Not insane	2	..	2	30	1	31
Unascertained	20	2	22	137	11	148
Total	50	2	52	329	14	343

TABLE No. 14.

Showing the form of insanity in those discharged by recovery or death during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

FORM OF INSANITY.	DURING THE YEAR.						SINCE OPENING, FEB. 2, 1859.					
	Recovered.			Died.			Recovered.			Died.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Melancholia.....	3	..	3	1	..	1	45	1	46	11	..	11
Mania, acute.....	7	1	8	..	..	..	29	3	32	5	1	6
Mania, sub-acute.....	..	..	..	..	..	..	7	1	8	..	..	..
Mania, chronic.....	3	..	3	..	..	..	15	2	17	17	1	18
Mania, periodic .....	..	..	..	..	..	..	8	1	9	7	..	7
Dementia.....	1	..	1	..	..	..	16	..	16	22	..	22
Epilepsy	1	1	2	1	..	1	4	1	5	2	..	2
Epilepsy with mania.....	.	..	..	..	..	..	1	..	1	1	..	1
Paresis .....	..	..	..	..	..	..	..	..	..	4	..	4
Not insane.....	2	..	2	..	..	..	61	..	61	..	..	..
Not recorded.....	..	..	..	..	.	..	6	..	6	9	..	9
Total	17	2	19	2	..	2	192	9	201	78	2	80

TABLE NO. 15.

Showing the cause of death of those who died during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

CAUSES OF DEATH.	During the year.			Since the opening.		
	Men.	Women.	Total.	Men.	Women.	Total.
Apoplexy, embolic.....	1	..	1
Aneurism, thoracic	1	1
Asthenia	1	..	1
Brain, softening of	3	..	3
Brain, tumor of.....	1	..	1
Bright's disease, with acute pleurisy and softening of the brain	1	..	1
Convulsions	2	..	2
Consumption, with ulcer of the stomach and softening of brain	1	..	1
Consumption, pulmonary.....	23	..	23
Diarrhœa.....	1	..	1
Dementia.....	2	..	2
Dysentery, with cirrhosis of liver.....	1	..	1
Diabetes mellitus, with peritonitis.....	1	..	1
Epilepsy	4	..	4
Epilepsy, with phthisis pulmonalis	1	..	1	1	..	2
Empyema	1	..	1
General debility.....	1	..	1
Heart and Bright's disease, with cirrhosis of the liver.....	1	..	1
Heart fibroid, degeneration of.....	1	..	1
Heart, spontaneous rupture of	1	..	1
Kidneys, cirrhosis of.....	1	..	1
Lung, gangrene of.....	1	..	1
Liver, cirrhosis of	1	..	1
Meningitis, acute.....	1	..	1
Mania, chronic, exhaustion of	2	..	2
Mania, acute, exhaustion of.....	1	1
Paresis.....	5	..	5
Pleurisy, with exhaustion	1	..	1
Suicide.....	1	..	1	4	..	4
Old age	1	..	1
Not recorded	13	..	13
Total	2	..	2	78	2	80

TABLE No. 16.

*Showing the ages of those who died since the opening of the asylum,
February 2, 1859.*

AGES	At time of first attack.			At time of death.		
	Men.	Women.	Total.	Men.	Women.	Total.
From fifteen to twenty years	1	..	1	..	..	..
From twenty to twenty-five years. . .	13	..	13	11	..	11
From twenty-five to thirty years. . . .	10	1	11	7	1	8
From thirty to thirty-five years.	13	.	13	14	..	14
From thirty-five to forty years.	7	1	8	11	..	11
From forty to forty-five years.	9	..	9	6	1	7
From forty-five to fifty years.	3	..	3	6	..	6
From fifty to fifty-five years	5	..	5	5	..	5
From fifty-five to sixty years.	5	..	5	4	..	4
From sixty to sixty-five years.	2	..	2	4	..	4
From sixty-five to seventy years. . . .	2	..	2	3	..	3
From seventy to seventy-five years. .	1	..	1	2	..	2
Unascertained.	7	..	7	5	..	5
Total	78	2	80	78	2	80

TABLE No. 17.

Showing the annual admissions, discharges and deaths since the opening of the asylum, February 2, 1859.

YEARS.	Admitted.			Discharged recovered.			Discharged improved.			Discharged unimproved.			Discharged not insane.			Died.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Previous years.....	422	26	448	112	2	57	55	2	57	76	4	80	30	....	30	52	2	54
1878.....	41	3	44	6	....	6	4	....	4	6	....	10	6	..	6	3	....	3
1879.....	36	1	37	5	1	6	1	....	1	5	....	6	2	..	2	6	....	6
1880.....	45	....	45	14	....	14	2	....	....	3	....	3	8	..	8	4	....	4
1881.....	25	....	25	12	....	12	....	....	....	13	....	13	10	....	10	5	....	5
1882.....	30	....	30	11	....	11	2	1	....	4	....	4	1	....	1	4	....	4
1883.....	36	1	37	15	1	16	5	....	5	6	....	6	2	....	2	2	....	2
1884.....	50	2	52	15	2	17	3	1	4	19	1	20	2	....	2	2	....	2
Total.....	675	33	718	190	9	199	72	4	76	131	11	142	61	....	61	78	2	80

Discharged, dates and condition not recorded. 6.

TABLE No. 18.

Showing the number and percentage of recoveries and deaths for each year since the opening of the asylum, February 2, 1859.

YEARS.	Daily average number.	Total number recovered.	Percentage on daily average.	Total number died.	Percentage on daily average.
1859.....	27.33	....	.....	....	.....
1860.....	48.5	6	12.37	....	.....
1861.....	62.	2	3.22	4	6.45
1862.....	78.66	9	11.44	1	1.26
1863.....	80.10	5	6.24	2	2.49
1864.....	79.08	4	5.05	1	1.27
1865.....	72.66	2	7.75	2	2.75
1866.....	70.2	2	2.84	3	4.27
1867.....	74.35	1	1.34	1	1.34
1868.....	77.62	6	7.72	3	3.86
1869.....	79.5	6	7.54	4	5.03
1870.....	78.	8	10.25	4	5.12
1871.....	67.06	6	8.94	2	2.98
1872.....	84.	7	8.33	5	5.95
1873.....	90.05	11	12.2	4	4.43
1874.....	95.5	8	8.37	4	4.18
1875.....	105.	11	10.47	4	3.8
1876.....	100.5	17	11.94	9	8.9
1877.....	98.5	6	6.09	1	1.01
1878.....	113.75	6	5.27	3	2.63
1879.....	126.5	6	4.74	6	4.74
1880.....	142.35	14	9.84	4	2.81
1881.....	138.16	12	8.68	5	3.61
1882.....	137.57	11	7.99	4	2.9
1883.....	147.21	16	10.86	2	1.36
1884.....	152.58	17	11.14	2	1.31

TABLE No. 19.

Showing the daily employment of men patients, and kind of work in each month during the year ending September 30, 1859.

MONTHS.	General.	Ward.	Dining-room.	Total men employed.	Daily average proportion of men.	Percentage employed.
October.....	47	59	25	131	139	94.3
November....	61	54	23	138	142	97.1
December.....	53	37	30	120	143	83.9
January.....	46	42	17	105	144	72.2
February..	42	43	15	100	142	70.4
March.....	49	51	16	116	146	79.5
April.....	49	53	14	116	145	80
May.....	47	48	16	111	147	75.5
June.....	48	50	15	113	146	77.3
July.....	65	48	18	131	147	89.1
August.....	60	44	14	118	148	81
September.....	52	40	14	106	147	72.1

Average percentage employed, 81.02.

TABLE No. 20.

Showing the daily employment of women patients and kind of work done in each month during the year ending September 30, 1884.

MONTHS.	General.	Ward.	Din'g-room.	Total women employed.	Daily av'age proportion of women.	Percentage employed.
October.....	1	1	2	4	7	56
November.....	1	1	2	4	8	50
December.....	1	4	1	6	9	66
January.....	1	1	1	3	8	37
February.....	1	1	1	3	8	37
March.....	1	1	1	3	7	45
April....	2	1	1	4	7	56
May.....	1	1	1	3	7	45
June.....	....	1	1	2	7	28
July.....	2	1	2	5	7	68
August.....	1	....	1	2	7	28
September.....	2	1	2	5	7	68

Average percentage employed..... 48.66

TABLE NO. 21.

Showing the number of patients secluded and total number of hours of such seclusion in each month during the year ending September 30, 1884.

MONTHS.	Patients.	Hours.
October.....	3	192
November.....	4	10
December.....	4	32
January.....	7	385
February.....	1	15
March.....	2	30
April.....	1	12
May.....	3	268
June.....	3	116
July.....	2	192
August.....	2	372
September....	1	1,716

Average daily percentage 0.025.

TABLE NO. 22.

Showing crime committed and charged by those admitted during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

CRIME.	During the year.		Since the opening.	
	Convicted.	Unconvicted.	Convicted.	Unconvicted.
Assault and battery.....	2	.....	10	.....
Assault and burglary..	.....	.....	3	.....
Assault and abduction.....	.....	.....	1	.....
Assault to harm.....	.....	.....	31	.....
Assault to rape.....	1	.....	11	.....
Assault to rob.....	.....	.....	2	.....
Assault with intent to kill.....	1	.....	2	2
Assault to do bodily harm.....	.....	.....	4	.....
Assault feloniously .....	.....	.....	1	.....

TABLE No. 22.— (Continued.)

CRIME.	During the year.		Since the opening.	
	Convicted.	Unconvicted.	Convicted.	Unconvicted.
Abduction . . . . .	.....	.....	1	.....
Arson	1	1	29	7
Arson, attempt at . . . . .	.....	.....	3	.....
Burglary.. . . .	13	1	182	2
Burglary, attempt at	1	.....	10	.....
Burglary and larceny . . . . .	.....	.....	3	.....
Bigamy	1	.....	5	2
Counterfeiting . . . . .	.....	.....	3	.....
Desertion . . . . .	.....	.....	1	.....
Destroying property	1	.....	1	.....
False pretenses . . . . .	.....	.....	5	.....
Forgery	1	.....	13	.....
Incest . . . . .	.....	.....	1	.....
Larceny, grand	7	...	129	3
Larceny, petit	4	.....	28	1
Larceny from person	2	.....	2	.....
Larceny, attempt at . . . . .	.....	.....	7	.....
Mayhem. . . . .	.....	.....	2	.....
Mutiny . . . . .	.....	.....	1	.....
Manslaughter . . . . .	.....	.....	22	1
Murder	1	4	31	35
Murder, second degree . . . . .	.....	.....	12	9
Murder, attempt at . . . . .	.....	.....	10	.....
Obstructing railroad . . . . .	.....	1	2	.....
Passing counterfeit money . . . . .	.....	.....	2	.....
Perjury . . . . .	.....	.....	1	1
Resisting officer . . . . .	.....	.....	1	.....
Robbery	3	.....	22	.....
Robbery, highway . . . . .	.....	.....	27	.....
Rape	2	.....	20	1
Receiving stolen goods	3	...	5	.....
Seduction . . . . .	.....	.....	1	.....
Sodomy	1	.....	1	.....
Vagrancy . . . . .	.....	.....	5	.....
Total.. . . .	45	7	653	65

TABLE NO. 23.

Showing the length of sentence of those admitted during the year ending September 30, 1884, and since the opening of the asylum, February 2, 1859.

SENTENCE.	During year.	Since opening.
One to three months.....	....	1
Three to six months.....	3	6
Six to nine months.....	....	5
Nine months to one year.....	....	1
One to two years.....	5	28
Two to three years... ..	1	122
Three to four years.....	7	60
Four to five years.....	7	71
Five to six years	7	117
Six to seven years.....	1	6
Seven to eight years.....	1	27
Eight to nine years.....	1	8
Nine to ten years.....	....	7
Ten to twelve years.....	3	63
Twelve to fifteen years.....	4	17
Fifteen to twenty years.....	....	22
Twenty to twenty-five years.....	1	28
Twenty-five to thirty years.....	....	6
Life	2	39
Death.....	....	4
Convicted but not sentenced.....	....	2
Unconvicted.....	8	64
Indefinite (from State Reformatory).	1	14
Total.....	52	718

TABLE No. 24.
Showing the current monthly expenses for the year ending September 30, 1884, and the average weekly cost per capita, for each of the items in the schedule.

MONTHS.	Salaries.	Commis- sary sup- plies.	Printing and sta- tionery.	Furni- ture.	Medical stores.	Clothing and bed- ding.	Building and re- pairs.	Fuel and lights.	Garden tools, hay, grain, etc.	Dis- charged patients.	Miscella- neous.	Amount total.
1883.												
October	\$897 69	\$813 84	\$14 95	\$21 15	\$34 21	\$297 07	\$55 73	\$261 73	\$20 42	\$29 00	\$51 25	\$2,497 04
November	918 44	1,053 67	15 15	83 46	9 95	48 78	16 38	386 75	39 01	.....	33 56	2,605 15
December	939 09	901 88	18 00	120 87	10 90	61 22	33 33	492 64	41 20	55 98	24 18	2,699 29
1884.												
January	910 66	1,012 69	34 35	62 54	31 18	46 74	13 52	334 36	51 18	11 58	78 02	2,586 82
February	925 15	686 81	144 45	30 44	17 40	78 59	26 89	571 60	78 80	28 75	71 75	2,660 63
March	911 73	539 30	60 63	95 97	22 64	75 27	14 88	383 78	47 02	6 00	46 20	2,203 42
April	908 28	682 21	10 00	47 10	39 64	61 79	114 69	270 97	50 26	19 16	13 23	2,217 33
May	911 98	880 78	7 40	59 68	38 23	310 49	33 96	202 76	64 15	11 78	49 09	2,570 30
June	885 91	768 87	10 16	58 32	23 45	35 74	47 61	101 29	62 89	63 82	75 60	2,133 66
July	725 95	773 09	23 05	26 25	15 34	52 80	59 94	122 09	65 54	10 30	190 50	2,064 85
August	705 75	826 36	50 60	35 00	44 99	104 57	639 50	101 99	41 58	50 07	105 48	2,705 89
September	746 47	826 86	27 40	66 02	18 23	97 35	954 05	86 73	29 64	25 00	77 89	2,955 62
Totals	\$10,387 10	\$9,766 36	\$416 14	\$706 80	\$306 16	\$1,270 39	\$2,010 48	\$3,316 69	\$591 69	\$311 44	\$816 75	\$29,900 00
Average weekly cost per capita	\$1,309	\$1,230	\$.052	\$.089	\$.039	\$.160	\$.254	\$.418	\$.075	\$.039	\$.103	\$3,768

Daily average number of patients, 152.58.

TABLE No. 25.

Showing the total average yearly cost, per capita, for each year since the opening of the asylum, February 2, 1859.

YEAR.	Average number present during year.	Total current expenditures.	Total cost, per capita.
1859.....	27.33	\$16,387 07	\$606.615
1860.....	48.5	17,491 50	360.649
1861.....	62.	14,173 85	228.61
1862.....	78.66	12,674 01	161.11
1863.....	80.10	12,035 80	150.259
1864.....	79.08	13,942 07	176.296
1865.....	72.66	16,639 18	229.542
1866.....	70.2	15,937 15	227.024
1867.....	74.35	16,933 94	227.974
1868.....	77.62	17,876 61	230.146
1869.....	79.5	13,954 92	175.546
1870.....	78.	19,879 39	254.864
1871.....	67.06	19,332 66	288.288
1872.....	84.	22,174 37	263.976
1873.....	90.05	22,354 08	248.24
1874.....	95.5	23,200 73	242.938
1875.....	105.	25,163 60	239.653
1876.....	100.5	29,511 23	293.644
1877.....	98.5	23,979 37	243.445
1878.....	113.75	23,027 30	202.437
1879.....	126.5	23,747 98	187.731
1880.....	142.25	26,011 73	182.856
1881.....	138.16	27,015 71	195.534
1882.....	137.57	29,963 00	217.789
1883.....	147.21	28,841 87	195.24
1884.....	152.58	29,900 00	195.99

TABLE No. 26.

Showing the products of the garden, etc., for the year ending September 30, 1884.

Apples, bushels	65	Carrots, bushels	100
Asparagus, lbs.	75	Cauliflower, heads.....	52
Beans, dwarf, bushels.....	21	Celery, doz.....	75
Beans, pole, bushels.....	3	Cherries, bushels	4
Beets, green, bushels.....	78	Corn, doz.....	180
Beets, blood turnip, bu...	86	Cucumbers, bushels.....	15
Beets, mangelwurtzel, lbs. 2,000		Grapes, bushels	15
Cabbage, heads..... 1,004		Lettuce, bushels.....	30

TABLE NO. 26 — (Continued.)

Melons, musk.....	85	Rhubarb, lbs.....	213
Onions, green, bushels ...	35	Spinach, bushels.....	40
Onions, dry, bushels....	30	Squash, winter, lbs.....	685
Parsnips, bushels.....	30	Squash, summer, lbs.....	38
Peaches, bushels.....	6	Strawberries, qts.....	251
Peas, bushels	5	Tomatoes, bushels.....	57
Pears, bushels.....	15	Turnips, bushels.....	73
Potatoes, bushels.....	25	Milk, gallons	1,245
Pumpkins	25	Pork, killed, lbs.....	3,130
Radishes, bushels.....	3	Beef, killed, lbs	1,125
Raspberries, qts.....	65		

TABLE NO. 27.

Showing the articles made and repaired in the tailor shop during the year ending September 30, 1884.

ARTICLES.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Aprons made	26	7	..	..	..	..	10	10	4	5	5	8	75
Aprons repaired.....	..	3	..	4	6	..	3	..	..	2	..	7	25
Bedticks made .....	..	..	6	..	..	..	6	6	2	3	11	..	34
Bedticks repaired.....	..	9	..	4	7	..	8	..	6	8	3	9	54
Caps made .....	..	..	24	..	..	..	10	5	..	..	1	..	40
Coats made .....	..	..	1	..	..	..	21	10	13	8	29	..	72
Coats repaired	45	47	56	37	12	51	30	20	30	8	7	7	350
Drawers made.....	..	15	5	13	3	10	15	13	14	..	2	14	104
Drawers repaired.....	5	56	30	53	27	63	8	10	6	5	9	6	278
Holders made .....	..	8	..	6	..	..	6	..	6	..	..	..	26
Mittens made.....	..	18	..	..	..	..	7	..	..	..	..	..	25
Overalls made.....	6	..	..	5	..	4	5	6	4	..	6	..	36
Overalls repaired.....	..	4	..	5	..	6	6	7	5	4	10	6	53
Overshirts made.....	..	..	..	..	..	6	5	8	4	..	..	..	23
Overshirts repaired.....	..	..	2	..	3	..	..	4	..	..	3	..	12
Pantaloons made.....	8	12	..	2	5	14	30	33	23	5	8	10	150
Pantaloons repaired.....	67	88	91	96	24	54	40	44	42	38	51	44	697
Pillow-cases made	3	14	3	5	..	6	15	13	16	2	7	48	132
Pillow-cases repaired.....	..	15	10	9	6	12	18	10	14	8	29	17	133
Pillow-ticks made.....	..	..	..	..	..	..	8	..	6	4	6	24	48
Shirts made.....	16	22	16	5	6	21	30	32	16	17	14	13	208
Shirts repaired.....	173	278	252	215	78	133	200	223	120	115	139	158	2084
Sheets made .....	..	11	6	14	..	16	10	8	..	13	8	6	92
Sheets repaired....	15	17	14	17	13	23	30	16	27	8	32	22	234
Suspenders made.....	..	24	..	..	..	10	10	17	..	..	..	..	37
Socks repaired.....	296	423	415	301	268	200	257	300	300	153	277	263	3453
Towels made.....	9	..	12	22	10	14	15	18	20	23	10	..	153
Undershirts made.....	..	60	42	2	2	6	8	6	..	..	18	..	144
Undershirts repaired .....	..	..	..	29	23	64	50	46	53	5	7	17	294
Vests made.....	..	2	1	2	4	4	9	11	7	14	..	2	55
Vests repaired.....	10	22	35	32	6	29	20	20	16	5	10	15	220

TABLE No. 28.

Showing the articles made and repaired in the shoe shop during the year ending September 30, 1884.

ARTICLES.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Shoes made.....	..	..	8	9	4	3	16	13	10	3	4	13	83
Shoes repaired .....	..	..	3	4	8	2	2	1	4	7	4	3	38
Slippers made	23	27	1	14	11	15	1	..	13	17	23	..	135
Slippers repaired	4	1	..	..	3	2	..	..	..	4	.	..	14

TABLE No. 29.

DIETARY.

Breakfast.

SUNDAY — Beef Hash, Bread, Butter and Coffee.

MONDAY — Stew Bread, Butter and Coffee.

TUESDAY -- Hominy with Syrup, Bread, Butter and Coffee.

WEDNESDAY — Baked Pork and Beans, Bread, Butter and Coffee.

THURSDAY — Beef Stew, Bread, Butter and Coffee.

FRIDAY — Boiled Eggs, Warmed Potatoes, Bread, Butter and Coffee.

SATURDAY — Oat Meal with Syrup, Bread, Butter and Coffee.

*Dinner.**

SUNDAY — Fresh Beef, Boiled Potatoes, Vegetables, Bread, Butter, Apple Sauce, Tea.

MONDAY — Beef Soup, Potatoes, Vegetables, Bread, Rice or Bread Pudding.

TUESDAY — Bean Soup, Potatoes, Vegetables and Bread.

WEDNESDAY — Boiled Fresh Beef, Potatoes, Vegetables and Bread.

THURSDAY — Corned Beef, Potatoes, Vegetables and Bread.

FRIDAY — Boiled Fresh Fish, Potatoes, Vegetables and Bread.

SATURDAY — Corned Beef, Potatoes, Vegetables and Bread.

Supper.

SUNDAY — Lunch (at one o'clock), Smoked Fish, Bread and Cheese or Herring and Crackers, Fruit in season.

MONDAY — Bread, Butter and Tea.

TUESDAY — Bread, Butter, Tea and Ginger Bread.

WEDNESDAY — Bread, Butter, Tea and Apple Sauce.

THURSDAY -- Bread, Butter and Tea.

FRIDAY — Bread, Butter, Tea and Ginger Bread.

SATURDAY — Bread, Butter, Tea and Apple Sauce.

* On Sunday, lunch is served at one o'clock, and dinner at four.

Bread is allowed *ad libitum*.

Per capita allowance of butter, one-half ounce.

Per capita allowance of tea, one-quarter ounce.

Per capita allowance of coffee, one-half ounce.

Per capita allowance of sugar, one-half ounce.


Per capita allowance of milk, one ounce.

Per capita allowance of meat, (cooked) about seven ounces.

Cabbage, Carrots, Celery, Parsnips, Onions, Tomatoes, Cucumbers (raw and pickled), Asparagus, Beets, etc., are furnished as vegetables.

Apples (green and dried), Pears, Cherries, Strawberries and Grapes are furnished as fruits.

Extra diet for sick and feeble (issued only on medical officer's order), Milk, Eggs, Beef-tea, Butter, Steak, Toast and Crackers.

 Coffee and Tea are served with milk and sugar.

REPORT OF STATE AGENT FOR DISCHARGED CONVICTS.

AUBURN, N. Y., *September 30, 1884.*

Hon. I. V. BAKER, Jr., *Superintendent of Prisons:*

SIR—I have the honor to submit the following statement of receipts, disbursements and expenditures, by me, during the fiscal year ending September 30, 1884:

RECEIVED.	
Appropriation for the year.....	\$5,000 00
<hr/>	
EXPENDED.	
Clothing.....	\$515 25
Subsistence.....	1,449 90
Tools and stock.....	590 20
Transportation.....	951 54
Traveling.....	1,126 43
Correspondence.....	50 85
Office record books.....	15 50
Services of Stephen Cutter, general agent of New York City Prison Association.....	300 00
Unexpended balance.....	33
<hr/>	
Total.....	\$5,000 00
<hr/>	

The number of prisoners conferred with is one thousand and twenty-seven (1,027), of whom six hundred and forty-three (643) have been assisted.

Very respectfully,

H. L. ARNOLD, *State Agent.*

STATE OF NEW YORK.

No. 12.

IN ASSEMBLY,

JANUARY 14, 1885.

REPORT

OF THE TRUSTEES OF THE WADSWORTH LIBRARY,
GENESEO, N. Y.

To the Legislature of the State of New York :

The Trustees of the Wadsworth Library, in pursuance of the statute, make the following report to the Legislature, for the year 1884.

The income account shows an amount received for rents and interest on securities	\$1, 439 54
Balance on hand, December 31, 1883.....	513 66
	<hr/>
	\$1,953 20

The expenses of 1884 have been.....	\$1,043 32
Leaving December 30, 1884, a balance on hand.....	909 88
	<hr/>
	\$1,953 20

All of which together with the list of the property of the library is fully set forth in Schedule "A" hereto attached.

A statement in regard to the number of books now in said library will be found in Schedule "B" also hereto attached.

SCHEDULE "A".

December 31, 1884, by cash received from interest on securities and rents	\$1,953 20
---	------------

Contra.

To librarian's salary.....	\$352 50
To care of building.....	37 50
To cost of new books.....	247 18
To binding old books.....	77 68
To coal.....	126 18
To gas.....	112 75
To express.....	5 63
To repairs.....	83 90
To balance to new account.....	909 88
	<hr/>
	\$1,953 20
	<hr/>

Property of Wadsworth Library.

Library lot and building.....	\$12,500 00
Temple Hill grove.....	1,000 00
Village house and lot.....	2,000 00
Principal in Savings Bank.....	2,264 50
Mortgages.....	18,002 47
Government bonds.....	150 00
On deposit in Genesee Valley Nation Bank income.....	909 88
11,012 books in library.....	10,012 00
	<hr/>
	\$46,835 85
	<hr/>

SCHEDULE "B."

Number of books in library, January 1, 1885.....	9,874
Received by purchase during the year 1884.....	138
	<hr/>
Whole number.....	10,012
	<hr/>

All of which is submitted,

CHARLES F. WADSWORTH,

President.

JAMES S. ORTON,

*Secretary.*GENESEO, *December* 31, 1884.

STATE OF NEW YORK.

No. 13.

IN ASSEMBLY,

JANUARY 14, 1885

THIRTEENTH ANNUAL REPORT
OF THE LE COUTEULX ST. MARY'S INSTITUTION FOR
THE IMPROVED INSTRUCTION OF DEAF-MUTES.

STATE OF NEW YORK:

DEPARTMENT OF PUBLIC INSTRUCTION, }
SUPERINTENDENT'S OFFICE, }
ALBANY, *January 13, 1885.* }

Hon. GEORGE Z. ERWIN,

Speaker of the Assembly :

SIR — I have the honor to transmit herewith the Thirteenth Annual Report of the Le Couteulx St. Mary's Institution for the Improved Instruction of Deaf-Mutes.

Very respectfully yours,

W. B. RUGGLES,

Superintendent.

REPORT.

To the Honorable Legislature of the State of New York :

It is with extreme pleasure and satisfaction I present you the past year's report of the principal of Le Couteulx St. Mary's Institution for the Improved Instruction of Deaf-Mutes.

From it you may readily see that the noble cause of the education of the deaf, for whose attainment mental service and public purse have been dealt out so unsparingly, is well cared for in western New York. Neither labor nor expense has been considered in endeavoring to make our institute equal to the best. We again take occasion to testify to the ability of our principal and present staff of teachers. Their great patience, energy and perseverance are remarked by all who visit our classes, and patrons appreciate the devotion of all to their respective tasks, and the conscientiousness with which they discharge their duties.

Possessing no claim to originality of plan of instruction, we select from those in vogue the best adapted to our times and circumstances, and if, perchance, we seem to give more prominence now than formerly to any particular mode of communication, it is because of the demand of the age.

Relinquishing in nowise our confidence in the practicability and efficiency of the sign language, we cannot close our eyes to the growing importance of a knowledge of the oral system. During the past year two of our oldest teachers spent a considerable time under private instruction to fit themselves more thoroughly for this important work.

Articulation and lip-reading are now potent factors in our educational system, and its results have surpassed even our most sanguine expectations.

In company with my esteemed predecessor in office, it was our pleasure to attend the National Convention of Instructors, held at Faribault, Minn., in July last. Needless to say, our visit there was most profitable and instructive, for there was assembled the combined talent, in this teaching, of the whole land. Words of wisdom constantly fell from the lips of those present, for they were veterans in the cause. Opinions were freely expressed, valuable suggestions offered, and the attendants left to judge of the respective merits of the questions under consideration. It was our first expe-

rience at the like, and we cannot help expressing our gratitude for the kind attention paid and generous hospitality extended us. None are so old as not to be able to learn, and hence whatever we observed of practical benefit to ourselves we feel free in appropriating, and hope such gatherings may continue to spread their usefulness over the length and breadth of the land.

Our industrial department has received its due share of attention, and to forward its interest considerable expense was incurred during the past year. Commodious and attractive work-shops were erected, new industries were begun, thereby stimulating fresh vigor among the pupils. By instilling into their youthful minds a spirit of independence their future prospects are rendered proof against the reverses of fortune, the neglect of friends, or this world's cold charity.

The plan spoken of in our last report has been consummated, and a branch house opened, to which the younger boys have already been removed. A new and substantial building was constructed; all the modern appliances and conveniences were introduced. The hygienic properties are excellent, insuring the necessary health and comfort of the pupils. True, considerable outlay had to be made, but the good results in prospect are the sufficient compensation. The main house has obtained a needed relief — discipline suited to the young has been introduced, the early acquirement of mischievous habits is, to a great extent, averted, and in general a better order of things can be maintained.

To console us in all our labors that choicest of temporal blessings — good health — has been vouchsafed us. No serious case of illness has occurred within the institute during the entire year. For this happy state of affairs we have indeed to thank those in charge, but, above all, Him, without whose watchful care all human efforts are vain.

We have reason then to congratulate ourselves on the past year's success in the great work of rescuing our fellow-creature from his misery and degradation. At one time a stranger to the ideas, feelings and pursuits of his fellow-men, with his soul sealed in darkness, he is awaked to a new life — is made to think, feel and converse with his neighbor; is taught to discharge the duties and follow the pursuits of society; to become a perfect Christian in faith and works, and thereby obtain a share of all blessings, spiritual and temporal, both here and hereafter.

To continue such good work, your generous co-operation is essential. We, therefore, request appropriation for one hundred pupils, the estimated number for the coming year.

Respectfully submitted,

P. S. DUNNE,
President.

PRINCIPAL'S REPORT.

To the President of the Board of Trustees :

DEAR SIR — I have the honor to submit, according to law and good custom, the following report of the Le Couteulx St. Mary's Institution for the year ending September 30, 1884 :

There were in the house at the date of the last report 154 pupils ; 86 boys and 68 girls ; 13 have been admitted during the year ; 3 have died at their homes, and 25 have left the institute, having either completed their course, or been withdrawn by their parents. Our present total is 139 ; 75 boys and 64 girls, supported as follows : 86 appointed as State pupils ; 33 county charges of this State ; 20 are paid for by parents or guardians.

SCHOOLS.

The school is conducted according to the well-tried and universally approved system prevailing in all the best institutes for the deaf ; with such improvements, of course, as naturally, from year to year, is developed out of the combined wisdom and experience of those who have given their lives to the work. Much good has resulted to our school, as to all similar schools, from those conventions which bring together earnest and enthusiastic teachers for interchange of views on the subjects of common interest. Two from here attended the two latest, held in New York and Faribault, Minn., last summer, and have expressed themselves much pleased and benefited by sharing in and observing the proceedings.

The sentiment of the best educators is in favor of oral teaching to all deaf children. Therefore, while from the outset we have carefully taught the articulation method, we have let no year go by without extending its scope in the school, until now it is the medium of instruction in all branches and to all our pupils. We are happy to say that the results have exceeded our most sanguine expectations. All, to be sure, have not profited equally ; for capacity and adaptability differ among deaf as among hearing children ; but many even of those who are unable to articulate perfectly have, through the study of articulation, learned to read the lips of others.

In addition to the oral instruction in classes we give as much time as possible to individual instruction in articulation. The aim of our system being, as the aim of every system of similar application must

ever be, to impart the greatest benefit to the greatest number ; we give much instruction by means of writing, nor do we entirely discard signs — that rapid, natural and effective medium of communication, which so high an authority as Dr. Peet, alluding to his recent visit to a celebrated deaf-mute institute in Belgium, and an address which, by the request of the principal, he delivered in signs, calls “a language common both to them and to me, a language which takes no account of words, but is a true interpreter of thought.”

Two of our most experienced teachers in signs lately spent three months in Philadelphia visiting the articulation schools of that city, and familiarizing themselves with the workings of their methods. They thus gained an experience and encouragement which greatly alleviate the difficulties which, at first sight, the articulation system presents to those accustomed to the more rapid medium of signs.

We had it long in contemplation to separate the younger boys from the older, and this year, at last, we have been able to accomplish our desire. We have built a branch house at a short distance from the institution where the boys under twelve years of age will be cared for and educated after a method more suitable to their years than was ever possible while they were in the same establishment with the older boys, whose time is divided between school and workshop.

As to the girls, but a small proportion of them are under twelve, and our accommodations for them are ample. Therefore, we still retain them all in the main institution.

We have, for the benefit of the younger pupils, introduced an adaptation of the Kindergarten system, inasmuch as we have provided a collection of common objects whose name and use are attractively set forth to the little ones. These they learn to express orally. They form oral sentences on the same, and their interest is stimulated and their attention sustained more effectively than by any other method.

We have furnished the class-rooms with large mirrors which teachers and pupils conjointly use to acquire that faculty of exact imitation indispensable in the study of lip-reading ; and have also provided them with complete sets of charts on the animal, vegetable and mineral kingdoms, which greatly facilitate instruction in natural history. We are constantly adding to our store of maps, picture-books, etc.

It would be difficult to exaggerate the benefit which these poor children, whose minds must be reached almost entirely through their eyes, derive from pictorial and object teaching ; especially since the great improvement in those educational appliances enable us to give our pupils so accurate ideas of the properties of the objects of everyday use and need. The institute is open all day, and friends of the pupils and persons interested in deaf-mute education generally are always cordially welcomed.

We have a public examination annually in presence of the honorable board of supervisors and prominent citizens, who witness, with

gratification, the results of our work. We also hold semi-annual examinations of all the classes, in the public hall of the institute for promotions from grade to grade, in presence of the pupils and teachers. These are a strong incentive to hard study and laudable emulation.

INDUSTRIES.

As most of our pupils come from the working classes, and will be obliged, in one way or another, to earn their livelihood after they leave us, it has been and must always be our aim to train hand and brain simultaneously. The work-shops, therefore, are a prominent feature in our institution, and the programme of industries is so varied that we are able to afford to every pupil opportunity to acquire a practical knowledge of that handicraft for which he shows a special aptitude.

For instance, the clothes and shoes worn by the inmates are made on the place, under the eyes of competent instructors; thus, a certain number of pupils can be counted on to become practical tailors and shoemakers. The mattresses and bedding of the house is also prepared here.

About twenty-five boys and girls are employed at type-setting. This industry means no mere amateur work. Our type-setters are trained to the skilled labor required in the employees of a large, well-established and widely-circulated paper.

The *Union and Times* is printed on our premises and by our pupils, under the superintendence of a practical foreman. This printing office we regard as one of the most useful adjuncts of our educational department, and we find that our pupils who have mastered this always available industry make extraordinary progress in their regular course. Our type-setters, for several years, have been leaving us only to enter on steady and remunerative employment in printing offices throughout this section.

An average of fifteen pupils are employed at tailoring; ten at shoemaking, and at least thirty girls at dressmaking and plain sewing. Others among the boys learn cane-work, and the girls, according to strength and capacity, are for an hour or two daily exercised in those domestic duties of which it behooves women of every age, rank and condition to have a practical knowledge.

We are happy to say that our industrial department affords great satisfaction to all the patrons of our institution, and to the parents of our pupils; and that no pupil of even average capacity leaves us unqualified to earn a decent livelihood.

It is only to be regretted that parents are sometimes so shortsighted as to withdraw their children directly they can earn a pittance at any industry, instead of leaving them a year or two longer, at which time they could command the remuneration accorded to expert labor.

HEALTH.

We are glad to be able to state that our pupils have enjoyed throughout the year a remarkable exemption from disease of any

sort. Our excellent sanitary arrangement and the minute attention which we require of the persons in dining-rooms, sleeping-rooms, work-rooms, etc., the time scrupulously devoted to out-door exercise and recreation, and the unwearied vigilance of our esteemed physician, Dr. G. E. Mackay, have, with God's good help, greatly contributed to this happy state of affairs.

We have, however, regretfully to record the death of three of our pupils, all at the homes of their parents. One died of heart disease and constitutional decline, being obliged to return home almost immediately after the opening of the fall term. Another was drowned while out on a fishing excursion during his vacation; and still another died from cold contracted while temporarily excused from his classes to assist his parents who were needy and out of work.

We tender our sincerest sympathy to the bereaved relatives; but knowing as we did the pure hearts and innocent lives of the children they have lost, beg them to fix their hopes on that happy eternity whither their loved ones have preceded them, and where we all humbly hope to obtain the fruition of our lives' purpose—the best we can do here, being, after all, merely as the promise of the blossom.

BUILDINGS, REPAIRS, ETC.

Since our last report, much work has been done in the way of buildings, repairs, etc. A work-shop for the boys employed in shoe-making and tailoring has been erected adjoining the main institution, and hard wood floors laid in several of the school-rooms and play-rooms, wainscoting, painting, new fencing, needful repairs in steam boiler, sewerage, plumbing, etc., have all received due attention. A building has also been put up at the farm for the accommodation of the junior pupils already referred to.

These improvements were expensive and obliged us to go to some extent into debts, which we hope, by as strict economy as is consistent with the respectable maintenance of the house, soon to wipe out.

We respectfully request an appropriation for one hundred State pupils for the coming year.

Thanking you and our assistant teachers for your hearty co-operation in all our work for the welfare of the institution.

Respectfully submitted,

SISTER MARY ANNE BURKE,

Principal.

PHYSICIAN'S REPORT.

*To the Board of Trustees of the Le Couteulx St. Mary's Institution
for the Improved Instruction of Deaf-Mutes :*

It is encouraging, as well as gratifying, to be able to inform you that the percentage of sickness in the institution was less than the year ending October 1, 1883. This being due, in a great measure, to prompt investigation where sickness was suspected, constant vigilance upon the part of the sisters, as well as the exercise of intelligent supervision on all matters pertaining to the sanitary condition of the house. During the entire year there were but few cases of measles or croup, and only two of scarlet fever. Their immediate isolation prevented any uneasiness or alarm. Colds, usually mild, bronchial in character, and easily amenable to treatment, prevailed during the spring and autumn months.

I desire to avail myself of this opportunity to acknowledge my indebtedness for many acts of kindness during the past year.

Respectfully,

G. E. MACKAY.

TREASURER'S REPORT,

FINANCIAL STATEMENT OF THE INSTITUTION FOR THE YEAR ENDING SEPTEMBER 30, 1884.

Receipts.

Cash on hand October 1, 1883.....	\$186 94
From the Comptroller of the State of New York....	20,680 35
" the State of New Jersey.....	143 33
" Albany county supervisors	\$395 00
" Cattaraugus county supervisors....	714 00
" Chautauqua county supervisors....	585 00
" Chemung county supervisors	30 00
" Cortland county supervisors	30 00
" Erie county supervisors.....	3,947 97
" Kings county supervisors.....	360 00
" Lewis county supervisors.....	275 00
" Monroe county supervisors	1,472 09
" New York county supervisors....	30 00
" Niagara county supervisors.....	885 00
" Oneida county supervisors.....	30 00
" Onondaga county supervisors.....	30 00
" Ontario county supervisors	580 00
" Orange county supervisors	190 41
" Oswego county supervisors.....	465 37
" Rensselaer county supervisors....	580 00
" Schenectady county supervisors ...	194 82
" Washington county supervisors....	275 00
" Wayne county supervisors.....	30 00
<hr/>	
Total counties.....	11,099 66
From parents of pupils not State charges	1,581 72
" bequests	600 00
" work, printing.....	485 75
" work, caning.....	87 15
" pupils, traveling fares.....	72 92
" donations.....	14 00
" sale of shoes	160 20
" sale of books	21 46

From sale of clothing.....	\$37 00
“ sale of barrels, bones and rags	7 10
“ money borrowed.....	600 00

Total receipts	<u>\$35,777 58</u>
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Expenses.

As per itemized statement, bills and vouchers sent to Comptroller :

Indebtedness upon real estate, principal.....	\$5,000 00
Indebtedness upon real estate, interest.....	1,250 00
Other indebtedness existing October 1, 1883.....	806 24
Salaries, wages and labor.....	9,369 20
Provisions and supplies.....	7,232 47
Clothing.....	1,611 20
Fuel and lights.....	1,269 34
Medicine and medical supplies.....	293 22
Furniture, beds and bedding.....	1,009 87
Ordinary repairs.....	585 79
Buildings and improvements.....	5,797 87
School supplies, stationery, postage, etc.....	323 53
Miscellaneous	971 51

Total expenses	<u>\$35,520 24</u>
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Cash on hand October 1, 1884.....	\$257 34
Valuation of property.....	90,000 00

Indebtedness upon real estate.....	\$20,000 00
Indebtedness on account new buildings	6,791 09
Other indebtedness	2,646 30

Total indebtedness.....	<u>\$29,437 39</u>
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Respectfully submitted,
 SISTER MARY ANNE BURKE,
Treasurer.

STATE OF NEW YORK.

No. 14.

IN ASSEMBLY,

JANUARY 14, 1885.

REPORT

OF TRUSTEES OF THE OSWEGO CITY LIBRARY.

To the Legislature of the State of New York:

The Trustees of the Oswego City Library respectfully report, for the year 1884 as follows:

Balance, cash on hand, December 31, 1883.....	\$53 17
Receipts from December 31, 1883 to December 31, 1884..	1,124 82
	<hr/>
	\$1,177 99

Disbursements.

Paid for books.....	\$349 36
Paid for repairs.....	145 31
Paid for insurance, three years	120 00
Paid expenses maintaining library	599 50
	<hr/>
	1,214 17
	<hr/>
Leaving balance due Treasurer.....	\$36 18

The property of the institution is all in good order.

Besides the books purchased during the year there have been a few valuable additions by donation.

The officers and trustees, are:

George D. McWhorter	-	-	-	-	<i>President.</i>
John B. Edwards	-	-	-	-	<i>Treasurer.</i>

DeWitt C. Littlejohn,
Thomson Kingsford,
Charles Rhodes,

Theodore Irwin,
Gilbert Mollison,
Frederick O. Clarke.

All of which is respectfully submitted,

FREDERICK O. CLARKE,

Secretary.

Dated OSWEGO, N. Y., *January* 8, 1885.

[Assen Doc. No. 14.] 1

SIXTEENTH
ANNUAL REPORT

OF THE
TRUSTEES

OF THE
WILLARD ASYLUM FOR THE INSANE

For the Year 1884.

TRANSMITTED TO THE LEGISLATURE JANUARY 14, 1885.

ALBANY, N. Y.:
WEED, PARSONS AND COMPANY,
LEGISLATIVE PRINTERS.
1885.

STATE OF NEW YORK.

No. 15.

IN ASSEMBLY,

January 14, 1885.

SIXTEENTH ANNUAL REPORT
OF THE TRUSTEES OF THE WILLARD ASYLUM
FOR THE INSANE.

To the Legislature of the State of New York:

Herewith is submitted the sixteenth annual report of the Willard Asylum for the Insane, for the year ending September 30, 1884.

Very respectfully yours,

STERLING G. HADLEY,
D. A. OGDEN,
GEO. W. JONES,
F. O. MASON,
S. H. HAMMOND,
S. R. WELLES,
DIEDRICH WILLERS, JR.,
A. S. STOTHOFF.

OFFICERS OF THE ASYLUM.

TRUSTEES.

Hon. S. G. HADLEY, Waterloo, Hon. D. A. OGDEN, Penn Yan,
A. S. STOTHOFF, Esq., Watkins, Hon. F. O. MASON, Geneva,
Hon. GEO. W. JONES, Ovid, S. R. WELLES, M. D., Waterloo,
Hon. S. H. HAMMOND, Geneva, Hon. D. WILLERS, Jr., Varick.

OFFICERS OF THE BOARD OF TRUSTEES.

President.

Hon. S. G. HADLEY, Waterloo.

Secretary.

S. R. WELLES, M. D., Waterloo.

Treasurer.

Hon. JAMES B. THOMAS, Ovid.

RESIDENT OFFICERS.

Superintendent.

P. M. WISE, M. D.

Assistant Physicians.

H. E. ALLISON, M. D.,
H. G. HOPKINS, M. D.,
G. B. BRISTOL, M. D.,

ALEX. NELLIS, Jr., M. D.,
W. E. SYLVESTER, M. D.,
M. D. BLAINE, M. D.

Steward.

MORRIS J. GILBERT.

Matron.

JULIET W. WYMAN.

Assistant Officers.

JAMES H. RANDALL,
HENRY KITSON,
ANSON WHEELER,
Mrs. LOUISA F. ADAMS,

Mrs. J. H. RANDALL,
Mrs. HENRY KITSON,
Mrs. ANSON WHEELER,
Miss HARRIET L. VAN HOESSEN.

Chaplain.

Rev. CHAS. W. MCNISH.

Chief Clerk.

R. M. DENTON.

Apothecary.

WM. P. NEELE.

REPORT.

To the Legislature of the State of New York :

The undersigned trustees of the Willard Asylum for the Insane respectfully submit to your honorable body their sixteenth annual report, together with the report of the treasurer, giving a detailed statement of the receipts and expenditures for the asylum for the year ending September 30, 1884.

In regard to our population — the number of patients received and discharged during the year, the number now remaining in the asylum, the places from which they came and to which chargeable, the death-rate and the diseases, aside from the misfortune of insanity, to which they are subject and of which they die — we refer for full information to the report of the medical superintendent and to the statistical tables in the appendix to his report, hereto annexed. Also, as presenting interesting facts connected with the asylum and its conduct, we beg to refer to the products of the labor of the patients, both male and female, and to the productions of the farm and garden and their values as set forth in the said appendix.

A brief allusion to the changes which have occurred inside, and to the improvements in buildings and operations outside, will present the general condition and management of the trust committed to our care.

On the 2d day of August, 1884, Dr. John B. Chapin tendered his resignation as medical superintendent of this asylum. He had held the position from the organization and opening of the institution in 1869, and had discharged the responsible and arduous duties connected therewith with entire satisfaction to all concerned. He was among the original founders of the asylum, and under his wise care and faithful supervision it had grown to its present dimensions and standing. It was with much regret that we accepted his resignation, to take effect September 1, 1884.

On the same day, with entire unanimity, we elected Dr. Peter M. Wise as medical superintendent in place of Dr. Chapin, resigned. Dr. Wise had served for eleven years as an assistant physician. From his long service under Dr. Chapin he had become entirely conversant with his methods, plans and purposes, and was familiar with the management and operations of the asylum, both in general and in detail. The change of supervision was not a change, but the continuation of a fixed, settled and successful policy; and with the present organization all the operations of the asylum have moved

along smoothly and in a satisfactory manner. It is due to Dr. Wise to say that his long experience in the asylum, the interest he has ever manifested in its affairs and for its welfare, and his kind and considerate intercourse with, and care for, the unfortunate ones committed to his charge, his decided executive force and industrious and prompt discharge of duty, were the controlling causes and reasons which led to his immediate and unanimous election. We have no misgivings as to his success, and will say that we regard it as fortunate that from our own household, reared and educated with us and intimately associated with our progress and success, we were able to find a worthy successor to Dr. Chapin. In this connection it is proper for us to state that we were fortunate in securing the services of Dr. Henry E. Allison as first assistant physician. Although at the time of his appointment he was engaged in private practice, he had served for a long time on the medical staff of the asylum under Dr. Chapin — by whom he was recommended — and was entirely familiar with the workings of the institution. In our judgment he is well fitted and well qualified, both professionally and otherwise, for the important position rendered vacant by the promotion of Dr. Wise. Under the law, and rules of the Civil Service of the State, both Dr. Wise and Dr. Allison were subjected to the required examination by a committee of eminent medical gentlemen selected by the Civil Service Commissioners, and both were duly certified as qualified.

At the annual meeting of the board of trustees, it was decided that it was proper and expedient to add to the medical department of the asylum a female physician. In the opinion of the medical superintendent, in which we concur, the services of a competent female physician can be beneficially employed in the wards and buildings occupied by females. We think it becoming and wise and likely to be productive of good to have a female physician, skilled by study and experience in the treatment of diseases peculiar to her sex on the medical force of the asylum. We shall await the result with confidence, believing that we shall thereby increase the usefulness of the asylum and add to the comfort of the unfortunate insane women committed to its custody. With an infirmary building, elsewhere described, for the special care of the feeble and infirm patients, and especially provided and equipped for their treatment both by night and day, and with a well educated and qualified female physician, we shall feel that we have made a decided step in advance, and shall have added to this great charity of the State a new and very desirable feature; making Willard Asylum a still more comfortable home for the unfortunate insane poor, and one of which the people of the State as well as its managers may justly feel proud.

Pursuant to an act of the last Legislature, Laws of 1884, chapter 27, we have purchased one hundred and thirty-five (135) acres of land known as the Simpson farm. It was paid for as the law provided, without a direct appropriation from the State treasury, from a surplus fund accumulated by the sale of rags, bones, hides and tallow,

and it is now the unencumbered property of the State. We regard it as a valuable acquisition for the asylum and the State. As a farm it is now worth more than it cost. In addition to its value as a farm, its purchase was of still greater importance by cutting off all claims for damages from its previous owners for the use and diversion of water and for alleged nuisances, as follows: The discharge of the sewer from the Branch into the ravine adjoining, and from the proximity of our slaughter-house, piggeries, and barn-yard to the dwelling-houses on said farm. In the purchase it was expressly stipulated that all claims for damages or injuries from the above or any other cause against the asylum, were fully waived and settled. Since the purchase of this land, which lies on the south, adjacent to the asylum land for one mile or more, we have greatly improved the buildings, yards, sheds and fences. As a result, we have more barn room and shelter for our stock, and three dwelling-houses for employes, which will yield a small rent. We have now a herd of one hundred and five milch cows besides a large herd of young cattle, and this land, added to that which we already had, affords pasturage and fodder for them all. This gives to the asylum a supply at all times of a healthful and requisite diet in the shape of pure, fresh milk.

During the year we have erected a building twenty by sixty feet, for the storage of rags, and for a paint shop, isolated from other buildings, and it is now in use. The new brick building commenced in 1883, and provided for by an appropriation of that and the following year (Laws of 1882, chap. 362; Laws of 1883, chap. 491), has been completed, and is now in use. There are twelve sleeping rooms, one large room for laboratory uses, a fine amusement hall with appropriate stage scenery, to be used for concerts, lectures and amusements for the entertainment of patients, and for social purposes by attendants, and a large basement for storage, etc. We regard this building as a valuable addition to our system and plan for the care and treatment of the class of insane that are here. The benefits resulting from its use are many and varied. In a population embracing from three to four hundred intelligent and respectable young people employed as attendants, and most of the time engaged in the care of the insane, isolated largely from general society and constantly under strict discipline and watchfulness, there is an absolute necessity, both for comfort and for health, to have some proper social recreation. In the asylum there are many insane persons whose calamity has only partially dethroned reason; whose few delusions are coupled with a keen if not quickened perception of right and wrong, of insult and suffering, of physical and mental enjoyment. It is for their special good, for their pleasure, that this building has been erected and furnished. It has fully met our expectations. It is healthful in its influence, and adds to the contentment of attendants and patients. It affords innocent amusement, social intercourse, and proper relaxation. Under its influence, discipline is better administered and observed, the disturbed and afflicted are quieted, and their confine-

ment made more endurable, their mental suffering relieved, and their dark way enlivened by a bright ray of light occasionally flitting across it. This building with its hall also relieves the chapel, which can now be devoted to religious exercises alone. On the whole, then, this investment was a good and proper one for the asylum.

In this asylum, manual restraint has been virtually abandoned ; indeed, it was never practiced here to any great extent. It has gradually been discontinued, until now it is very rarely resorted to, but has been superseded by the personal care and attention of attendants. Often patients are brought here by county authorities with handcuffs and chains upon them, from which they are at once released, such relief resulting in marked improvement, and in the end in decided benefit, mentally as well as physically.

During the past year night service, in addition to the regular night watches, has been, to a limited extent, introduced. It was an experiment, but the result has been of a marked character. For fuller particulars on this subject we refer to the medical superintendent's report.

The manufacture of clothing in the institution, for the use of the inmates, has been continued and extended. All the mattresses needed are now, and will be hereafter, made in the asylum, and also, to a large extent, the boots and shoes, as well as their repairs. The effect of this has been twofold. A much better quality of clothing has been furnished, and at a lower price. This, it will be observed, is a direct and manifest pecuniary benefit to the counties which have patients here whom they are obliged to clothe. The price of clothing has in this way been reduced one-third to one-half, and the counties are to that extent benefited. In other words, in utilizing the labor of the patients in manufacturing clothing for the inmates we so far cheapen the cost for clothing, besides giving them better and more comfortable wearing apparel and furnishing occupation for a number of patients, that has been of decided benefit to them. For the amount of labor performed, and the number and kind of articles made, we refer to the tables and statements in the report of the medical superintendent.

During the year previous to the resignation of Dr. Chapin, the subject of a new one-story hospital, or infirmary building, was with him the subject of frequent discussion and investigation. The necessity, the benefits and results of such a building and service, involving more fully that of night service, were examined, and both Dr. Chapin and Dr. Wise became interested in the matter. As a result of their thought upon it, a plan for such a building was made and estimates of its cost prepared. It should be built of brick, one story high, five hundred and twenty-eight feet long and forty-eight feet wide, with large dormitories, day-rooms, hospital wards and appliances, properly arranged and divided, and with a broad veranda on three sides. Such a building will have a capacity for two hundred sick, feeble, infirm and filthy patients, thus bringing them into easy and convenient position to be cared for both day and night.

They can there be made comfortable at all times, with attendants ever at hand to change clothing, keep beds and rooms clean and neat, and in a position to be furnished with pure air and kind attendance night and day. In our wards there are now at least two hundred of the class of patients above described who are without any special provision for their unusual wants. This infirmary building will relieve one of the wants we have so long felt. To us it seems like a humane and proper provision to make for these feeble and infirm people, who, without strength and largely demented, are unable to take care of themselves. We, of course, do for them the best we can; better than they ever were or ever would be taken care of in poor-houses. But without this new building and its appliances we cannot look after this class so well as we would like. We submit the matter to the Legislature and will be content with their decision. The estimated cost of the building is fifty-one thousand dollars (\$51,000). We think it should be built of brick because it will thus make a structure much safer from fire, more substantial and durable, and of better appearance, at a cost of about five thousand dollars (\$5,000) more than if made entirely of wood. The plans were submitted to Dr. Smith, the Commissioner of Lunacy for the State, and with him examined and discussed, meeting his approval both in purpose and design. They were also presented with an itemized estimate of their cost to the State Board of Charities; and are now with that body for examination and approval, preparatory to submission to the Legislature for the necessary appropriation, if they deem it wise and best to sanction the erection of such a building. In this we have not designed and do not wish to be understood as seeking for an appropriation to extend Willard Asylum. It is to give to the asylum a needed improvement and opportunity to better provide for and render more comfortable the patients now here for care and custody. It will be borne in mind that the new building will add to the capacity of the asylum accommodations for two hundred more of the insane poor from the county-houses of the State. According to the report of the State Board of Charities, there are now a large number of pauper insane in miserable condition scattered throughout the State in the poor-houses of many counties. For a comparatively low sum, about two hundred and fifty dollars *per capita*, we can make room for two hundred of these suffering ones. It is for the Legislature to say whether this shall be done. We present the facts and needs, and can only say that if the duty be given into our charge we will try to perform it faithfully. Such a building will greatly aid us in our work and will be an advanced step in the right direction, as regards both care and economy; and will be an example which may prove of great advantage to the whole country.

When this asylum was contemplated and begun it was intended to accommodate about five hundred — at the utmost, one thousand — of the pauper insane poor from the county-houses of the State.

The central building, bakery and laundry were planned for such a population; but the institution has since grown, enlarged and been extended by adding group to group of buildings, until its utmost anticipated limit has been doubled. The laundry has been enlarged and extended so that now we have fifteen large washing-machines operated by steam; and we wash and dry twenty-eight thousand (28,000) different pieces of clothing weekly, iron what is necessary and distribute them all to the different groups, buildings and wards. We use a railroad of our own to make the distribution, in connection with the distribution of the daily supply of food, etc. Our bakery has not been enlarged since it was opened. Two ovens are in use, the number originally intended. They have been in use continuously for many years, and are now inadequate for the service required of them. Nine hundred (900) large loaves of bread, using up twelve barrels of flour per day, is the daily product of these two ovens. We have prepared a plan for a new and large bakery with larger and improved ovens. The estimated cost with needful appliances is five thousand eight hundred and ninety-six dollars (\$5,896). Connected with the present kitchen in the centre building is the dining-room for employes. It is eleven by twenty-six feet, and in it from seventy to eighty people have now to eat their daily meals. This is attended with great inconvenience. The removal of the present bakery will give us ample room to enlarge this dining-room to proper dimensions for accommodating at a single table these employes. It will also furnish a good room to prepare vegetables for cooking, which has heretofore been done outside; further, it will enable us to enlarge the steam-room for cooking. The alterations required to accomplish all this, we estimate, will cost fifteen hundred dollars (\$1,500). At group No. 1, the need of a larger kitchen and dining-room has always been felt, and now, with the increased number of patients, it has become an absolute necessity. These alterations and enlargements can be made at an estimated cost of one thousand dollars (\$1,000). We should have, contiguous to our machine shop, sheds and storage place for iron pipe, lumber and other materials, which we estimate will cost eight hundred dollars (\$800). The steward's office is much too small to accommodate its increase of business. There all the books are kept and the business of this great establishment transacted. It is now contracted and inconvenient. We estimate, that it will cost to enlarge it and make it fit for its use, six hundred dollars (\$600). Our sewerage is defective and has been the source of a good deal of trouble and damage to us. Some of it is emptied into the ravine, and becomes offensive as well as dangerous to health in summer. We propose to bring it all into our sewer and discharge it into deep water in the lake. To do this will require four thousand five hundred feet of ten to twelve inch sewer-pipe, and will cost twelve hundred dollars (\$1,200). To all this we have added for contingencies seven hundred and fifty dollars (\$750), making in all as follows:

For bakery and ovens.....	\$5, 896 00
For alterations of old bakery for increased dining and vegetable rooms.....	1, 500 00
For enlargement of kitchen and dining-room at group No. 1.....	1, 000 00
For sheds and storage for lumber, etc.....	800 00
Alteration in steward's office.....	600 00
Sewerage, 10 x 12 inch pipe.....	1, 200 00
Contingencies	750 00
<hr/>	
Total.....	\$11, 746 00
<hr/> <hr/>	

The whole amount of appropriation asked for aside from the new infirmary is thus eleven thousand seven hundred forty-six dollars (\$11,746).

In the superintendent's report will be found a table showing the number of trustee and committee meetings during the year.

During the year, the asylum has been visited by a great many people, among whom were distinguished men and women and officials from other States, seeking information as to the best and cheapest plans for construction, and the best methods for care of the insane. To all such, our doors and our books have been opened, and all needed information given on the subject of inquiry. Boards and committees of Supervisors and a large number of superintendents of the poor, have visited the asylum and inspected the condition of the insane from their respective counties, and their treatment here. These town and county officials have been cordially received, and all proper and necessary information touching legitimate subjects of inquiry has been given them. In addition to the above, quite a number of members of the Legislature, the Secretary and several members of the State Board of Charities, have visited and passed through the asylum, and inspected our books, and have been informed as to our system of business, methods of treatment, etc. The State Commissioner of Lunacy has also made several official visits to the asylum, during which he made very thorough and minute examinations of patients, attendants, and officers; of the methods of administration, keeping accounts, procuring, furnishing, cooking and distributing food and supplies; of the general treatment of patients both by day and night, also examining the complaints of patients, in all of which the authorities have afforded him all the information and assistance in their power. The officials of the State, members and committees of the Legislature, boards of Supervisors, and other officers, will at all times be welcome at Willard Asylum. We shall always be glad to see those who have a right to inquire and to examine. We have nothing to conceal, and invite the closest scrutiny of our management. We regard the trust committed to us of the highest order and most sacred character, and we have but a simple desire: to discharge it well and faithfully, to

be advised and corrected if wrong, and to improve and make better if we can.

At our annual meeting we, as by law required, fixed the price for maintenance for the ensuing year, at two dollars and fifty-five cents (\$2.55) per week per patient. This is a reduction of ten cents per week from last year. At this price there is no rebate. While the actual cost for the last year slightly exceeded this sum, yet we shall be able to go through the year by a resort to the surplus fund on hand, if necessary; thus giving the counties the full benefit of the reduced price and of the surplus, without a resort to the complicated accounts of a monthly rebate. We have no debt, but there is a small surplus accumulated from sales by the steward of hides, pelts, tallow, rags, bones, etc. In managing the affairs of so large an establishment, involving an expenditure of two hundred and fifty thousand dollars *per annum*, and liable at all times to unforeseen accidents or casualties and extraordinary expenditures resulting therefrom, it is not only wise, but necessary to have always on hand a small surplus as a contingent fund to meet any such emergencies. Instead of asking the Legislature to furnish this fund from the State treasury, we have provided it from the sources mentioned, holding and using it as a trust for the benefit of the counties which have insane people here for care and custody. Last year we applied from this fund over ten thousand dollars (\$10,000) to pay for a farm of one hundred and thirty-five acres, under legislative authority; of which the counties reap the benefit by increased production applied to, and tending to the reduction of cost of maintenance chargeable to them. The counties also had a monthly rebate from the fixed rate of board of fifteen cents (.15) per week for the last quarter of the year, and now they share in the surplus by a reduction in the cost of maintenance for the year of ten cents per week, carrying it a little below the actual cost of last year. If the actual cost should fall below \$2.55 per week, the counties would still have the benefit, by there being at the end of the year a larger surplus belonging to them, which would then be applied for the future to reduce the cost for maintenance.

It affords us pleasure, to add, in conclusion, that the service of officers and employes has been performed, with few exceptions, faithfully and willingly.

All of which is respectfully submitted.

STERLING G. HADLEY,
D. A. ODGEN,
DIEDRICH WILLERS, JR.,
GEO. W. JONES,
F. O. MASON,
S. R. WELLES,
S. H. HAMMOND,
A. S. STOTHOFF.

TREASURER'S REPORT.

To the Trustees of the Willard Asylum for the Insane :

The treasurer of the asylum respectfully submits the following statement of his receipts and payments for the year ending September 30, 1884:

RECEIPTS.

To cash on hand September 30, 1883:.....	\$30, 947 57
To cash received from State Comptroller, chapter 362, Laws of 1882.....	4, 800 00
To cash received from State Comptroller, chapter 491, Laws of 1883.....	6, 000 00
To cash received from State Comptroller for salaries of officers.....	12, 500 00
To cash received from treasurers of counties and cities for current expenses.....	264, 960 75
To cash received from the steward for the sale of hides, pelts, tallow, rags, etc.....	4, 013 02
To cash received from rents.....	225 50
	<hr/>
	\$323, 446 84

PAYMENTS.

By bills paid from appropriation, chapter 362, build- ing account, Laws of 1882, as per vouchers rendered Comptroller.....	\$4, 006 01
By bills paid from appropriation, chapter 491, build- ing account, Laws of 1883, as per vouchers rendered Comptroller.....	4, 549 58
By bills paid from appropriation, chapter 551, build- ing account, Laws of 1884, as per vouchers rendered Comptroller.....	1, 339 60
By bills paid for salaries of officers for *fifteen months, as per vouchers rendered Comptroller.....	15, 695 82
By bills paid from county account, as audited by audit- ing committee for current expenses.....	264, 905 44
By bills paid from steward's account.....	10, 441 43
By bills paid from rent account.....	199 50
By balance in hands of treasurer.....	22, 309 46
	<hr/>
	\$323, 446 84

JAMES B. THOMAS, *Treasurer.*

OVID, N. Y., *October 1, 1884.*

* From July 1, 1883, to October 1, 1884.

REPORT OF THE SUPERINTENDENT.

To the Trustees of the Willard Asylum for the Insane :

In accordance with the requirements of the law, the following report of the operations of the asylum for the year ending September 30, 1884, is respectfully submitted :

On September 30, 1883, there were 1,758 patients in the asylum, of whom 827 were males and 931 females. During the year there were admitted 125 males and 111 females, making a total of 1,994 patients under care and treatment. Of this number 103 males and 69 females were discharged, and died, leaving 1,822 patients in the asylum on Sept. 30, 1884, of whom 849 were men and 973 were women.

The numerical results of the year are presented in tabulated form in the appendix, to which your attention is solicited. Table II shows the condition of those discharged. Of the eight males and five females registered as recovered, but one had been previously admitted to the asylum. It is gratifying to report that the 61 patients discharged were removed to the homes of friends, and that none were remanded to alms-houses.

The admissions, discharges and deaths for each year are exhibited in table IV. It will be noticed that the number of admissions for the past year is larger than for several years previous. This may be largely attributed to the crowded state of the Binghamton Asylum and the reception of patients from the district assigned to them. Of the admissions, 77 were brought to the asylum from their homes; 85 were transferred from other asylums, and 74 from alms-houses and jails. A number of admissions from counties exempt from the "Willard Asylum Law" appeared to be a direct result of the visitations to the county receptacles for the insane of the secretary and members of the State Board of Charities and the State Commissioner in Lunacy, and the designation by them of cases for transfer to the State asylums. While it is necessary for the counties to retain part of their insane by reason of insufficient accommodations in the State asylums, and while the tendency exists on the part of exempted counties to retain all their chronic insane, the practice of selection by the officials mentioned is one to be encouraged, and should receive the willing co-operation of the asylums.

The mortality for the year was six and two-tenths per cent of the daily average number of patients. The causes of deaths for the past and previous years are shown in table V. Pulmonary consumption was the cause of 27 per cent of the mortality, and 85 per cent of all the deaths resulted from exhausting diseases incident to such a population. The asylum has been free from any unusual sickness, and

the mortality as compared with like institutions is quite low. A low degree of vitality exists in a large number of our patients, and with such as are also mentally enfeebled the ordinary tendency is downward and progressive. A larger rate of mortality may be anticipated.

The tendency on the part of friends and officers to commit to the asylum old and infirm persons, who require unusual care by reason of their enfeebled mental condition and bodily infirmities, has been a growing one. The ratio of patients over 60 years of age to the whole number admitted during the year is 18 per cent, while that for all previous years is but 11 per cent. The number of patients in the asylum at the end of the year who were either unable or unwilling to attend to their natural wants was 464. Of this number 220 are very untidy in their habits at all times, and require frequent changes of clothing and a daily renewal of their bedding. It is the abuse and neglect of this class of the insane, more than any other, that has led to occasional exposure of the deplorable and wretched condition of the insane in county alms-houses. In the report of the State Commissioner of Lunacy for 1883 is a detailed account of his thorough and searching examination into the condition of the insane in alms-houses. A perusal of his report will satisfy the advocates for county care of the insane that the liability to abuse and neglect of insane in county-houses still exists; although not in the same degree as was possible before the creation of this asylum.

For the purpose of giving patients with filthy habits equally as good care at night as they receive during the day, a service of night attendants has been inaugurated. Although confined to a single department containing 100 patients, the results thus far prove the value of such a service for all the insane that should properly have night care; which would include with the untidy class night epileptics, suicidal and infirm patients. With the present asylum structure the extension of this service to the degree indicated would be expensive, and would add materially to the present cost of maintenance. If special provision were made for this class, in the nature of a one-story structure, with the essentials recommended by Dr. Chapin in his last annual report to the board, an ample night service could be effectually and economically administered, and the comfort of the patients materially enhanced. Such essentials consist in large dormitories and day-rooms. A dormitory might properly be large enough for 100 patients; and if connected with a day-room for a like number, and an infirmary ward for the bed-ridden patients, all separated from a similar structure by a refectory building, it would, in the light of our experience, seem the best adapted for the purpose named. Such a plan is submitted, and would cost, if built with brick, about \$250 per capita.

The ages, civil condition, nativity, previous occupation and the duration of insanity of the patients admitted during the year, and for all admissions heretofore reported, are shown in tables VII to XII, inclusive. Of the 236 admissions for the year, one hundred and forty-six,

or sixty-two per cent, were native born; while of the 90 who were foreign born 42 were of Irish nativity. Of the 3,542 patients admitted since the opening of the asylum, two thousand one hundred and ninety-two, or sixty-two per cent, were born in the United States. The occupation table shows no increase in the number of artisans who are admitted to this asylum; a great proportion being common laborers and domestics.

FINANCIAL STATEMENT.

The following classification of expenditures, as audited, for the year ending September 30, 1884, is taken from the books of the steward:

			Weekly cost per capita.
Maintenance—stores and supplies.....	\$96,119	47	= \$1.032+
Fuel and lights.....	25,624	52	= .275+
Farm wages and expenses.....	8,980	86	= .096+
House wages.....	72,284	35	= .776+
Furniture and repairs.....	24,655	67	= .265—
Miscellaneous.....	10,638	16	= .114+
Medicines....	2,614	50	= .028+
Improvements.....	2,947	11	= .032—
Total.....	\$243,864	64	= \$2.619+

The above expenditures are \$2,704.33 greater than for the previous year, with an increased daily average of forty-two. Expenditures for clothing amounted to \$19,162.62, being an average per capita cost of ten dollars and seventy cents; or about twenty cents weekly. This reduction in the cost of clothing is largely the result of the manufacture of men's clothing in the asylum. The table showing the amount of work done in the tailoring department will be found in the appendix. All clothing for patients is now manufactured in the asylum, with the exception of shoes and hats. During the past year overcoats have been added to the list of articles manufactured.

In addition to the above expenditures there were payments for the Simpson farm of \$10,298.40, as authorized by the Legislature; and for steel rails of \$2,300.80, paid from the fund accumulated by the sales of hides, tallow, rags, etc. The cost of board was two dollars and sixty-two cents weekly; an additional charge for clothing, as issued, averaged twenty cents; salaries of the resident officers thirteen cents, making a total average weekly amount of two dollars and ninety-five cents.

From an analysis of the treasurer's report for the fiscal year, the following statement is prepared:

Cash on hand, less unpaid bills due from the asylum..	\$26,870	10
Due from counties.....	7,842	92
Total.....	\$34,713	02

Your board reduced the rate per week to counties for the ensuing year, from \$2.65 to \$2.55; while the actual cost for the past year has been \$2.62. Should the expenditures be increased by a general advance in prices of supplies, or from any other cause, the existing surplus might be found none too large. In the machinery of so vast an establishment there are liable to arise emergencies from accidents or casualties that call for immediate and extraordinary expenditures; and it is a wise and safe provision to have a reasonable surplus that may be regarded as a contingent fund.

The repairs and improvements for the year have kept pace with the ever growing demands of structures that are subjected to the severe usage of an insane population. The painting and decorating of the wards has progressed, and I hope the board will favor its continuance until all the halls have a finished appearance. Ten bathrooms and water-closets have had worn-out wood floors replaced by tile. A two-story frame building for the storage of rags and for a paint shop, and summer house for patients, were constructed. Additional sheds for cattle and the extension of the slaughter-house were erected to meet a pressing need. The large culvert under the railroad embankment was extended twenty feet. A large amount of grading was done by patients; sixteen thousand four hundred and fifty feet of fence were built; ten thousand feet of tile drain were laid during the year by attendants and patients. The embankment along the lake shore in front of the main building is being extended farther into the lake fifteen feet. This will add very much to the protection of the road, and will improve the appearance of the shore front. The movement of earth from one point to another has proven a valuable means of employing demented patients, whose sluggish perceptions would exclude them from more complicated labor.

We have been unfortunate in having tuberculosis develop in our herd of milch cows, to a degree that has attracted unusual attention. During last winter the disease assumed an acute form; and by the direction of your board, Prof. Law of Cornell University with Dr. Blaine of the asylum medical staff, made a thorough physical examination of the herd and selected the cows unfit for use, which were killed. During the year the herd has been examined from time to time; the diseased cows separated from the healthy and those purchased, until our herd has regained its usual excellent standard. Dr. Blaine has been devoted to the scientific study of the disease and its sanitary relations, and has rendered a valuable service to the asylum in addition to his ordinary official duties.

In August last, Dr. Chapin, who had been the superintendent of this asylum since its organization, and who was one of the commissioners appointed by Gov. Fenton in 1865 to locate and build the asylum, resigned to accept the office of physician in chief and superintendent of the Pennsylvania Hospital for the Insane at Philadelphia. As you well know, no occurrence in the history of the institution has created such wide regret and such anxiety for its welfare as the announcement that he had severed his official connection with the

asylum, and that it was his intention to remove from the State. After eleven years of almost daily personal intercourse with Dr. Chapin, I feel competent to testify to his zeal for the work in which he was enlisted, and of his loyalty to the humane purposes of your board. His influence was not confined to the interests of this asylum, but all questions that were related to the care and treatment of the insane in this and other States received his earnest attention ; and at appropriate seasons the prestige of his pen and voice. It would seem that a system of civil service permitting the appropriation of so valuable an agent by another government is not one best calculated to attain the highest order of excellence. The reorganization ensuing upon the resignation of Dr. Chapin was effected by your board, by the promotion of the first assistant physician to the position of superintendent, and the appointment of Dr. Henry E. Allison to the vacancy created by such promotion. Dr. Allison had formerly served as an assistant physician of the asylum for five years, and you were fortunate in again securing his valuable services.

I have taken the liberty of preparing, and herewith present to you, a tabulated statement of the number of meetings of your board for the year between the annual meetings of 1883 and 1884 ; also the number of meetings, with the sum of attendance, of the several committees of the board :

		Sum of attendance.	Average attendance.
Number of board meetings.....	12	73	6
Number of audits by auditing committee.....	12	24	2
Number of meetings of committee on farm and buildings.....	13	32	2½
Special committee meetings.....	5	15	3
	=====	=====	=====

There were eighty-seven separate days of the year on which members of the board visited the asylum. This record would seem a sufficient answer to the charge occasionally made of inattention on the part of the managers to the affairs and interests of the asylum.

The rules and regulations adopted by your board have been enforced. The resident officers have cordially and harmoniously co-operated in preserving the order and discipline necessary for the successful operation of so large an asylum as this. The record of service of employes is unusually good ; the attendants, with a few exceptions, having discharged the duties they were engaged to perform faithfully, patiently and kindly. The general estimation in which the asylum is held will depend largely on the quality of service rendered by them. The rules of the Civil Service Commission governing the selection of officers and employes have been strictly observed. The commission have selected a board of examiners from the resident staff, who make examinations of attendants and other employes in accordance with the classification and rules adopted by the commission.

The new amusement hall has added materially to our means for the diversion of patients and for the needed recreation of employes. A weekly social entertainment for patients has been instituted, and has proven a valuable addition to our amusements. We are under obligations to Dr. Nellis for his willing efforts to make the entertainments a success, and to other members of the household for sustaining them.

During the year the publishers and editors of the following papers have kindly favored us with copies of their publications, which have been distributed to patients and read by them. The kindness of the donors has been highly appreciated: Rochester Morning Herald, daily; Seneca Falls Reveille, two copies; Seneca County News, Geneva Advertiser, Ovid Independent, Geneva Courier, two copies; Waterloo Observer, Penn Yan Express, Seneca County Courier, Havana Journal, Geneva Gazette, Watkins Express, Asteroid, two copies; Husbandman, Hudson Register, Hudson Gazette, Catholic Herald, Freeman's Journal, New York Tablet, Catholic Union and Times, Irish Nation, Boston Index, Boston Pilot, Dr. Squibbs' Ephemeris, Ill. Catholic American, United Irishman, Catholic Review, The Catholic, Irish World, Weekly Witness, Connecticut Catholic, Catholic Examiner, National Catholic and The News Letter.

Donations were received as follows: The exchanges with the Ovid Independent from Mr. O. C. Cooper; numerous packages of papers from Mrs. C. D. Miller, of Geneva, who has been a frequent and constant contributor; one volume Christian Advocate, from Hon. John Raines; Littell's Living Age, from S. W. Hopkins; five bound books, magazines and illustrated papers from the State Charities Aid Association; papers from Mrs. J. D. Thomas; several volumes magazines from Dr. Chapin; magazines from W. H. Coleman; papers from Mrs. D. W. Wattles, W. H. Chesnut, Mrs. J. L. Shaw, Mr. John Covert, Hon. J. B. Thomas, Mr. T. B. Foster, Mrs. Edward Hasler; 100 copies Christian Herald from Rev. R. N. Leake, and package illustrated magazines from Col. Robert Johnson.

We are also indebted to the Romulus Cornet Band for a concert; to Mrs. W. T. Sherwin, of Elmira, for an entertainment; to Mrs. Charles Simmons, of Reading Center, for Easter flowers; to Rev. A. H. Austin for a lecture, and to J. Montgomery Mosher, of Albany, and W. M. Gilbert, for acceptable entertainments.

We are under obligations to the Rev. Father O'Connell and to Rev. C. W. McNish for frequent religious ministrations rendered to the household.

I am particularly indebted to my associate officers for the assistance they have rendered me. I cannot fully express my appreciation of the considerate support I have received from you, gentlemen; and to execute the service you have entrusted to me in an acceptable manner will continue my chief desire.

P. M. WISE,

Medical Superintendent.

WILLARD ASYLUM FOR THE INSANE, }
WILLARD, N. Y., Dec. 9, 1884. }

APPENDIX.

STATISTICAL TABLES.

I.

MOVEMENT OF PATIENTS.

	Males.	Females.	Total.
The number of patients in the asylum September 30, 1883, was.....	827	931	1, 758
Admitted during the year.....	125	111	236
Whole number.....	952	1, 042	1, 994
Discharges and deaths.....	103	69	172
Remaining September 30, 1884.....	849	973	1, 822
Daily average number for the year was.....			1, 790

II.

RESULTS.

	Males.	Females.	Total.
Discharged recovered.....	8	5	13
Discharged improved.....	14	21	35
Discharged unimproved.....	12	1	13
Died.....	69	42	111
	103	69	172

III.

OPERATIONS FROM THE OPENING OF THE ASYLUM.

The following statement presents the movement of patients from the opening of the asylum, October 13, 1869, to October 1, 1884:

Whole number of patients admitted.....	3, 542
Discharged recovered.....	116
Discharged improved.....	301
Discharged unimproved.....	258
Died.....	1,041
Not insane.....	4
	1, 720
Remaining.....	1, 822

IV.
ADMISSIONS, DISCHARGES AND DEATHS FOR EACH YEAR.

	ADMITTED.			RECOVERED			IMPROVED			UNIMPROVED.			DIED.			NOT INSANE		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Previous yrs.	790	1106	1896	14	22	36	46	46	92	49	49	38	155	246	401	...	...	...
1878.....	179	101	280	1	5	6	8	24	32	13	13	28	49	38	87	1	...	1
1879.....	117	104	221	3	2	5	10	15	25	14	15	29	26	29	55	...	...	...
1880.....	154	126	280	7	9	16	18	21	39	4	5	9	39	50	89	1	...	1
1881.....	116	140	256	4	3	7	18	7	25	12	10	22	46	48	94	1	...	1
1882.....	97	120	217	8	10	18	9	13	22	13	7	20	61	56	117	...	1	1
1883.....	89	67	156	7	8	15	10	21	31	22	17	39	42	45	87	...	...	...
1884.....	125	111	236	8	5	13	14	21	35	12	1	13	69	42	111	...	...	...
Total ...	1667	1875	3542	52	64	116	133	168	301	141	117	258	487	554	1041	3	1	4

CAUSES OF DEATHS.

	1884.	Previously reported.	Total.
Exhaustion from chronic mental disease....	18	234	252
Paralysis and organic disease of brain.....	14	41	55
Paresis.....	13	84	97
Epilepsy	12	84	96
Debility of old age	8	56	64
Disease of the heart.....	3	36	39
Cerebral effusion	1	13	14
Phthisis pulmonalis.....	30	251	281
Enteric fever .....	..	29	29
Senile gangrene .....	..	2	2
Acute gastritis and enteritis.....	2	5	7
Strangulated hernia.....	..	1	1
Pneumonia	2	14	16
Carcinoma.....	1	12	13
Disease of kidney	2	1	3
Exhaustion from acute mania .....	..	4	4
Puerperal mania .....	..	1	1
Chronic diarrhœa.....	..	2	2
Suicide .....	..	3	3
Hæmoptysis	1	4	5
Dysentery	1	8	9
Diabetes .....	..	1	1
Injury ...	..	2	2
Diphtheria .....	..	1	1
Tumor of brain .....	..	5	5
Asphyxia .....	..	3	3
Marasmus .....	..	2	2
Cholera morbus .....	..	3	3
Carbuncle .....	..	1	1
Bronchocele .....	..	1	1
Erysipelas .....	..	6	6
Peritonitis.....	..	5	5
Embolism .....	..	3	3
Anasarca .....	..	2	2
Disease of the liver	1	6	7
Cystitis ...	..	1	1
Pyæmia.....	..	1	1
Pleuritis .....	..	1	1
Convolvulus .....	..	1	1
Purpura	2	....	2
	<u>111</u>	<u>930</u>	<u>1,041</u>

VI. RATIO OF MORTALITY.

	Average population.	Deaths.	Per cent.
1870	226	14	6.2
1871	436	52	11.9
1872	564	43	7.6
1873	727	48	6.6
1874	827	51	6.1
1875	938	49	5.2
1876	1,076	65	6.0
1877	1,227	79	6.4
1878	1,340	87	6.5
1879*	1,430	55	3.8
1880	1,628	89	5.5
1881	1,695	94	5.5
1882	1,759	117	6.6
1883	1,748	87	4.9
1884	1,790	111	6.2

VII. AGES OF THOSE ADMITTED.

	1884.	Previously reported.	Total.
From 5 to 10 .....	..	1	1
From 10 to 20	7	117	124
From 20 to 30	47	687	734
From 30 to 40	54	917	971
From 40 to 50	61	717	778
From 50 to 60	24	484	508
From 60 to 70	21	264	285
From 70 to 80	18	95	113
From 80 to 90	4	22	26
From 90 to 100 .....	..	2	2

VIII. CIVIL CONDITION.

	1884.	Previously reported.	Total.
Single	103	1,716	1,819
Married	90	1,275	1,365
Widowed	36	254	290
Unascertained	7	61	68
	236	3,306	3,542

* Includes ten months.

IX.

HEREDITARY TRANSMISSION IN THOSE ADMITTED.

	Males.	Females.	Total.
Paternal branch	12	9	21
Maternal branch.....	9	7	16
Insane relations	9	15	24
No heredity	47	34	81
Unascertained.....	48	46	94
	<hr/>	<hr/>	<hr/>
	125	111	236
	<hr/>	<hr/>	<hr/>

X.

NATIVITY.

	1884.	Previously reported.	Total.
New York	131	1,937	2,068
Vermont	1	23	24
Connecticut	2	11	13
Massachusetts	3	21	24
New Jersey.....	1	9	10
Michigan.....	..	5	5
New Hampshire.....	..	3	3
Rhode Island	1	6	7
Indiana .....	..	1	1
Pennsylvania	2	17	19
Maryland... ..	1	3	4
Wisconsin .....	..	1	1
North Carolina.....	..	1	1
Georgia .....	..	1	1
Illinois.....	1	2	3
Iowa .....	..	1	1
Ohio .....	..	1	1
Missouri	1	..	1
Maine .....	..	1	1
Virginia	2	2	4
Ireland	42	769	811
Germany.....	13	180	193
Prussia	1	2	3
Canada	6	46	52
England	9	92	101
France .....	..	13	13
Russia .....	..	5	5
Scotland .....	..	16	16
Spain.....	..	1	1
Italy .....	..	3	3
Holland.....	..	2	2

	1884.	Previously reported.	Total.
Denmark.....	..	3	3
Sweden	1	2	3
Wales .....	..	3	3
West Indies .....	..	1	1
New Brunswick.....	..	1	1
Sandwich Islands.....	..	1	1
Switzerland.....	..	3	3
Austria .....	..	1	1
Nova Scotia .....	..	1	1
Greece.....	..	1	1
Bavaria .....	..	1	1
Unascertained.....	18	113	131
	<u>236</u>	<u>3,306</u>	<u>3,542</u>

XI.

OCCUPATION.

	1884.	Previously reported.	Total.
Housework	84	1,307	1,391
Laborer.....	35	436	471
Farm work	38	339	377
Teacher	4	63	67
Seamstress	9	55	64
Tailor and tailoress	1	31	32
Optician .....	..	1	1
Milliner.....	..	12	12
Factory operative.....	3	16	19
Shoemaker	2	36	38
Launderer and laundress.....	..	5	5
Lawyer .....	..	10	10
Coachman	1	8	9
Gardener.....	..	6	6
Harness-maker .....	..	10	10
Soldier .....	..	2	2
Seaman and boatman.....	..	21	21
Student	2	28	30
Weaver	1	9	10
Beadwork .....	..	1	1
Mason .....	..	19	19
Clerk and book-keeper	2	51	53
Metal-worker	6	67	73
Wood-worker	10	82	92
Brick-maker .....	..	1	1
Tanner .....	..	9	9
Wool-carder.....	..	2	2

	1884.	Previously reported.	Total.
Painter.....	1	22	23
Physician.....	..	14	14
Stenographer.....	1	..	1
Comb-maker.....	..	2	2
Merchant and salesman.....	6	51	57
Cigar-maker.....	1	7	8
Baker.....	1	4	5
Brush-maker.....	..	3	3
Hotel-keeper.....	..	5	5
Compositor.....	..	9	9
Butcher.....	..	4	4
Glover.....	..	2	2
Paper-hanger.....	..	2	2
Miller.....	..	4	4
Furrier.....	..	1	1
Artist.....	..	3	3
Telegrapher.....	..	2	2
Hatter.....	1	2	3
Inventor.....	..	1	1
Oysterman.....	..	1	1
Miner.....	..	3	3
Jeweler.....	1	3	4
Druggist.....	..	3	3
Photographer.....	..	2	2
Barber.....	1	3	4
Dyer.....	..	1	1
Showman.....	..	1	1
Stonecutter.....	..	11	11
Policeman.....	..	1	1
Clergyman.....	1	2	3
Musician.....	..	2	2
Electroplater.....	..	2	2
Tinsmith.....	..	6	6
Bookbinder.....	1	2	3
Engineer.....	..	7	7
Dentist.....	..	1	1
Nurse.....	1	1	2
Undertaker.....	..	1	1
Engraver.....	..	1	1
Railroad operative.....	2	1	3
Cheesemaker.....	..	2	2
Upholsterer.....	..	1	1
Unascertained.....	4	153	157
No occupation.....	16	330	346
	<hr/> 236	<hr/> 3,306	<hr/> 3,542

XII.

DURATION OF INSANITY BEFORE ADMISSION.

	1884.	Previously reported.	Total.
Less than one year.....	33	128	161
From one to five years	81	1,231	1,312
From five to ten years.....	26	610	636
From ten to twenty years.....	26	447	473
From twenty to thirty years.....	7	157	164
From thirty to forty years.....	4	58	62
From forty to fifty years.....	1	16	17
From fifty to sixty years.....	..	8	8
From seventy to eighty years.....	..	2	2
Unascertained.....	58	649	707
	<hr/> 236	<hr/> 3,306	<hr/> 3,542

XIII.

FORM OF MENTAL DISEASE AT ADMISSION.

	1884.	Previously reported.	Total.
Dementia.....	85	1,528	1,613
Chronic mania	78	982	1,060
Paroxysmal mania.....	..	55	55
Periodic mania.....	7	71	78
Acute mania.....	13	68	81
Puerperal mania.....	..	7	7
Melancholia.....	18	128	146
Paresis.....	11	94	105
Epilepsy.....	20	295	315
Imbecility with maniacal paroxysms.....	4	74	78
Not insane.....	..	4	4
	<hr/> 236	<hr/> 3,306	<hr/> 3,542

XIV.

DEGREE OF EDUCATION OF THOSE ADMITTED.

	Males.	Females.	Total.
Common.....	57	58	115
None.....	4	15	19
Reads only .....	..	3	3
Collegiate.....	1	..	1
Academic.....	5	5	10
Unascertained.....	58	30	88
	<hr/> 125	<hr/> 111	<hr/> 236

XV.

DURATION OF INSANE LIFE OF THOSE WHO DIED.

	Years.
For 1871 it was.....	14
For 1872 it was.....	10
For 1873 it was	9
For 1874 it was.....	11
For 1875 it was.....	10
For 1876 it was.....	10
For 1877 it was.....	11
For 1878 it was.....	11
For 1879 it was.....	10
For 1880 it was.....	11
For 1881 it was.....	12
For 1882 it was.....	12
For 1883 it was.....	11
For 1884 it was.....	12

XVI.

THE PLACES FROM WHERE PATIENTS WERE TRANSFERRED.

	Males.	Females.	Total.
From home.....	40	37	77
From alms-houses.....	27	37	64
From Utica Asylum.....	24	21	45
From Hudson River Hospital.....	9	7	16
From Buffalo State Asylum.....	8	4	12
From Brigham Hall.....	..	2	2
From Custodial Asylum for Idiots.....	..	2	2
From jails.....	9	1	10
From Soldiers and Sailors' Home.....	8	..	8
	125	111	236

XVII.

MOVEMENT OF PATIENTS BY COUNTIES.

	In asylum, Oct. 1, 1883.	Admit- ted.	Dis- charged.	Remaining Oct. 1, 1884.
Albany.....	197	..	11	186
Allegany.....	28	4	3	29
Broome	1	..	..	1
Cattaraugus.....	3	3	..	6
Cayuga.....	63	21	7	77
Chautauqua	8	..	1	7
Chemung.....	62	11	5	68
Clinton.....	6	2	..	8
Columbia.....	25	..	2	23
Delaware.....	30	..	1	29
Dutchess.....	70	..	2	68
Erie	13	3	1	15

	In asylum, Oct. 1, 1883.	Admit- ted.	Dis- charged.	Remaining Oct. 1, 1884.
Essex.....	14	..	..	14
Franklin	27	1	2	26
Fulton.....	19	2	1	20
Genesee.....	8	4	1	11
Greene.....	11	..	2	9
Hamilton	1	..	..	1
Herkimer.....	18	..	2	16
Jefferson	31	8	7	32
Lewis	24	2	2	24
Livingston	5	..	..	5
Madison	5	..	..	5
Monroe.....	12	1	2	11
Montgomery.....	22	7	..	29
Niagara.....	53	11	..	64
Onondaga	24	10	5	29
Ontario.....	98	16	19	95
Orange.....	1	2	1	2
Orleans	19	2	2	19
Oswego	8	8	1	15
Otsego	18	..	1	17
Putnam.....	18	3	4	17
Queens.....	10	6	..	16
Rensselaer.....	138	1	9	130
Richmond.....	26	..	1	25
Rockland.....	11	..	..	11
St. Lawrence.....	31	6	2	35
Saratoga.....	20	2	3	19
Schenectady.....	25	3	1	27
Schoharie.....	28	..	2	26
Schuyler.....	31	7	7	31
Seneca.....	45	24	19	50
Steuben.....	60	3	8	55
Suffolk.....	4	..	..	4
Tioga.....	9	..	..	9
Tompkins	61	9	17	53
Ulster.....	75	..	6	69
Warren	2	..	..	2
Washington.....	15	11	..	26
Wayne.....	3	2	..	5
Westchester.....	111	14	5	120
Wyoming.....	4	..	..	4
Yates.....	35	11	3	43
City of Newburgh.....	10	2	..	12
City of Poughkeepsie.....	30	..	1	29
City of Kingston.....	14	1	..	15
State patients.....	11	6	1	16
Soldiers and Sailors' Home .	7	8	3	12
	<u>1,758</u>	<u>236</u>	<u>172</u>	<u>1,822</u>

XVIII.

LABOR PERFORMED BY PATIENTS.

	Total number of days.
Farm, garden and grounds.....	42,259
Barns and piggeries.....	7,672
Laundry and kitchens.....	37,129
Needle-work.....	42,284
Tailors and tailoresses.....	14,189
Hall work.....	72,601
Carpenter, painter, shoemaker, etc	7,096
	<hr/>
	223,230
	<hr/> <hr/>

PRODUCTS AND MANUFACTURES.

FARM PRODUCTS.

Apples, 50 bushels, at 30 cts	\$15 00
Beef, dressed, 5,514 lbs., at 7 cts.....	385 98
Corn, ears, 1,480 bushels, at 30 cts.....	444 00
Corn, fodder, 112 tons, at \$6.....	672 00
Corn, stalks, 3,729 bundles, at 2 cts	74 58
Corn, sweet, 591 bushels, at 40 cts	236 40
Chickens, killed, 540 lbs. at 10 cts.....	54 00
Ducks, killed, 36 lbs., at 13 cts	4 68
Eggs, 803 dozen, at 20 cts	160 60
Hides, 3,800 lbs., at 7 cts.....	266 00
Hay, 406 tons, at \$10	4,060 00
Milk, 46,251 gallons, at 20 cts.....	9,250 20
Oats, 1,542 bushels, at 30 cts.....	462 60
Potatoes, 15,027 bushels, at 35 cts	5,259 45
Rye, 162 bushels, at 60 cts.....	97 20
Straw, estimated, 150 tons, at \$4	600 00
Turkeys, dressed, 479 lbs., at 14 cts ...	67 03
Veal, dressed, 3,984 lbs., at 8 cts.....	318 72
Wheat, 1,489 bushels, at 80 cts.....	1,191 20
Pork, dressed, 30,789 lbs., at 6 cts	1,847 34
	<hr/>
	\$25,566 98
	<hr/> <hr/>

GARDEN PRODUCTS.

Asparagus, 4,060 bunches, at 2 cts	\$81 20
Beets, 1,113 bushels, at 25 cts	278 25
Beans, Lima, 40 bushels, at 50 cts	20 00
Beans, string, 126 bushels, at 25 cts	31 50
Cucumbers, 368 bushels, at 25 cts.....	92 00
Cabbage, 58,031 heads, at 3 cts.....	1,740 93
Carrots, 506 bushels, at 30 cts	151 80
Celery, heads, 10,037 bunches, at 3 cts	301 11

Corn, sweet, 111 bushels, at 40 cts	\$44 40
Kohl Rabi, 13 bushels, at 50 cts	6 50
Leeks, 3,000 bunches, at 1 ct.....	30 00
Lettuce, 482 bushels, at 20 cts.....	96 40
Mangel Wurzel, 822 bushels, at 30 cts.....	246 60
Onions, 688 bushels, at 50 cts	344 00
Onions, 1,220 bunches, at 2 cts.....	24 40
Parsnips, 379 bushels, at 40 cts.....	141 60
Parsley, 421 bunches, at 5 cts	21 05
Peas, 47 bushels, at 75 cts	35 25
Peppers, 18 bushels, at \$1	18 00
Potatoes, 166 bushels at 50 cts	83 00
Rutabaga, 283 bushels, at 30 cts	84 90
Rhubarb, 20,621 bunches, at 1 ct	206 21
Salsify, 35 bushels, at 50 cts	17 50
Spinach, 22 bushels, at 50 cts.....	11 00
Swiss Chard, 422 bushels, at 20 cts.....	84 40
Squash, summer, 322 bushels, at 25 cts	80 50
Squash, Hubbard, 113 bushels, at 50 cts	56 50
Sage, 579 bunches, at 2 cts.....	11 58
Turnips, 105 bushels, at 30 cts	31 50
Tomatoes, 1,829 bushels, at 40 cts	731 60

\$5,103 78

Total farm and garden products \$30,670 76

STOCK ON HAND SEPT. 30, 1884.

Horses, good	15	Bulls.....	4
Horses, old, unsound	8	Heifers.....	41
Colts	7	Turkeys	165
Hogs, fat	140	Geese	7
Shoats, pigs and boars	341	Ducks.. ..	16
Fowls	394	Guinea fowls.....	12
Cows	105	Oxen	2

ARTICLES MADE IN MATRON'S DEPARTMENT.

Aprons	1,050	Shirts	3,536
Blankets.....	897	Sheets	2,242
Bed sacks.....	193	Skirts	1,160
Balmoral skirts	325	Towels	1,682
Caps	25	Table cloths.. ..	97
Collars	1,813	Wrappers.....	927
Curtains	383	Stockings knit.....	60
Dresses.....	4,283	Mittens.....	120
Drawers	850	Tidies	10
Chemise	1,170	Hats trimmed	300
Holdes	115	Napkins hemmed	78

MATRON'S DEPARTMENT—Continued.

Night dresses.....	27	Mattress sacks.....	156
Pillows.....	150	Quilted blankets.....	50
Pillow cases.....	1,169	Quilted mittens.....	16
Quilted dresses	30	Pillow ticks.....	209
Shrouds	80	Bed spreads	100

ARTICLES MADE IN TAILORING DEPARTMENT AND SHOE SHOP.

Coats	1,333	Hair mattresses.....	187
Vests	1,448	Hair pillows.....	134
Pants.....	2,362	Shoes.....	61
Overcoats.....	78	Sets harness.....	2
Overalls.	250	Hair cushions.....	31
Union suits.....	42	Harness straps.....	32

All repairing of harness, boots and shoes.

DIETARY.

BREAKFAST.		DINNER.	SUPPER.
Sunday,	Hash. Bread. Coffee.	Cold Meat. Potatoes or Beans. Pickles or Tomatoes. Bread.	Bread. Butter. Ginger Bread. Tea.
Monday	Stewed Potatoes. Meat Stew. Bread. Coffee.	Pot Pie. . Bread. Vegetables.	Bread. Butter. Cracked Wheat. Syrup. Tea.
Tuesday,	Hash. Bread. Coffee.	Bean Soup. Boiled Potatoes. Boiled Rice. Bread.	Bread. Butter. Rusk. Tea.
Wednesday,	Fried Mush. Bread. Coffee.	Roast Beef. Vegetables. Bread.	Bread. Butter. Oat Meal. Syrup. Tea.
Thursday,	Fried Potatoes. . Meat Stew. Bread. Coffee.	Vegetable Soup. Boiled Potatoes. Rice. Bread.	Bread. Butter. Sweet Cake. Tea.
Friday,	Hash. Bread. Coffee.	Cod Fish. , Bread Pudding. Pickles or Tomatoes. Boiled Potatoes. Bread.	Bread. Butter. Corn Meal Mush. Syrup. Tea.
Saturday,	Boiled Potatoes. Meat Stew. Bread. Coffee.	Boiled Beef. Potatoes Pickles or Tomatoes. Bread.	Bread. Butter. Tea. Cheese.

In addition to the supplies indicated in the tables, vegetables in their season and fruits are issued.

LAWS RELATING TO THE INSANE.

CHAP. 446, LAWS OF 1874.

COMMITMENT OF THE INSANE — TITLE FIRST, ARTICLE FIRST.

SECTION 1. No person shall be committed to or confined as a patient in any asylum, public or private, or in any institution, home or retreat for the care and treatment of the insane, except upon the certificate of two physicians under oath, setting forth the insanity of such person. But no person shall be held in confinement in any such asylum for more than five days, unless within that time such certificate be approved by a judge or justice of a court of record of the county or district in which the alleged lunatic resides, and said judge or justice may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving of such certificate, and said judge or justice may, in his discretion, call a jury in each case to determine the question of lunacy.

§ 2. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of securing his commitment to an asylum, unless said physician be of reputable character, a graduate of some incorporated medical college, permanent resident of the State, and shall have been in the actual practice of his profession for at least three years, and such qualifications shall be certified to by a judge of any court of record. No certificate of insanity shall be made, except after personal examination of the party alleged to be insane, and according to forms prescribed by the State Commissioner of Lunacy, and every such certificate shall bear date of not more than ten days prior to such commitment.

RELATING TO THE WILLARD ASYLUM FOR THE INSANE — TITLE FOURTH, ARTICLE THIRD, CHAPTER 446, LAWS OF 1874.

§ 2. Said trustees shall have all the rights, privileges and powers, and be subject to the same duties, in said asylum, as are now possessed by and imposed upon the board of managers of the State Lunatic Asylum at Utica. * * * Said trustees shall also fix the rate per week, not exceeding the actual cost of support and attendance, exclusive of officers' salaries, for the board of patients. It shall further be the duty of said trustees, as portions of said asylum are completed and ready for the reception of the insane, to designate, in a just and equitable manner, and with the approval of the Governor, the counties from which the chronic pauper insane shall be sent to said asylum, as parts of the room shall be ready from time to time, for the reception of patients, except as hereinafter provided.

Section 10, as amended, chapter 574, Laws 1875 :

§ 10. The chronic pauper insane from the poor-houses of the counties shall be sent to the said asylum by the county superintend-

ents of the poor, except from those counties having asylums for the insane, to which they are now authorized to send such insane patients by special legislative enactments, or such counties as have been, or may hereafter be, exempted by the State Board of Charities. And all the chronic insane pauper patients; who may be discharged not recovered from State lunatic asylums, and who continue a public charge, shall be sent to the asylum for the insane hereby created; and all such patients shall be a charge upon the respective counties from which they are sent.

ADMISSION AND SUPPORT OF PATIENTS.

On the admission of a patient, there must be presented the certificate of two physicians, sworn to, and approved by a judge in the county in which the patient resides.

The following is the form of certificate prescribed by the Commissioner in Lunacy in these cases :

STATE OF NEW YORK, {
County of , } ss.
I, , a resident of , in the county aforesaid,
being a graduate of , and having practiced as a physician,
hereby certify, under oath, that on the day of I personally ex-
amined , of [Here insert age, sex, married or
single, and occupation] and that the said is insane, and a
proper person for care and treatment, under the provisions of chapter
446 of the Laws of 1874.
I further certify that I have formed this opinion upon the follow-
ing grounds, viz :
[Here insert facts upon which such an opinion rests.]
And I further declare that my qualifications as a medical examiner
in lunacy have been duly attested and certified by .
[Here insert the name of the judge granting such certificate.]
Sworn to and subscribed before me, {
this day of , 188 }

STATE OF NEW YORK, {
County of , } ss.
I hereby certify that , of is personally known
to me as a reputable physician, and is possessed of the qualifications
required by chapter 446 of the Laws of 1874, and I approve of the
above certificate.

.....
Judge of

[Form of an order for the admission of a patient at county expense from a county where there is but one superintendent of the poor.]

To the Superintendent of the

WILLARD ASYLUM FOR THE INSANE:

Whereas _____, a person who is chargeable for his support to the county of _____, is a lunatic; and whereas _____ and _____ two reputable physicians, duly qualified as medical examiners under chapter 446 of the Laws of 1874, have certified under oath of _____ insanity; now, therefore, I, the undersigned, sole superintendent of the poor of said county, do hereby order the said _____ to be taken to the said asylum; and do hereby authorize and require you, the said superintendent, to receive _____ into said asylum, and there detain and maintain _____ at the expense of said county, until legally discharged therefrom.

Given under my hand this _____ day of _____, 18 ____.

.....
Superintendent of the poor of _____ County.

[Form of an order for the admission of a patient at county expense from a county where there is a board of county superintendents of the poor.]

To the Superintendent of the

WILLARD ASYLUM FOR THE INSANE:

Whereas _____, a person who is chargeable for his support to the county of _____, is a lunatic; and whereas _____ and _____ two reputable physicians, duly qualified as medical examiners under chapter 446 of the Laws of 1874, have certified under oath of _____ insanity; now, therefore, we, the undersigned, constituting* _____ the board of superintendents of the poor of said county, and being convened for that purpose, do hereby order the said _____ to be taken to the said asylum; and do hereby authorize and require you, the said superintendent, to receive _____ into said asylum, and there detain and maintain _____ at the expense of said county, until legally discharged therefrom.

Given under our hands this _____ day of _____, 18 ____.

.....

Superintendents of the poor of _____ County.

* If the whole board do not sign, insert "a majority of."

DISCHARGE OF PATIENTS.

Patients are discharged by the board of trustees at the regular meetings of the board, held on the first Tuesdays of March, June and September, and at the annual meeting on the second Tuesday of December.

During the intervals between the meetings patients are discharged by a committee of the board of trustees, appointed in pursuance to chapter 190, section 2, Laws of 1881.

Patients are not discharged by the superintendent. The power to discharge patients is vested solely in the board of trustees, in pursuance to chapter 446, title 3, section 24, Laws of 1874, as follows:

“§ 24. The managers, upon the superintendent's certificate of complete recovery, may discharge any patient, except one under a criminal charge, or liable to be remanded to prison; and they may discharge any patient admitted as ‘dangerous,’ or any patient sent to the asylum by the superintendent or overseers of the poor, or by the (first) judge of the county, upon the superintendent's certificate that he or she is harmless, and will probably continue so, and not likely to be improved by further treatment in the asylum. or when the asylum is full, upon a like certificate that he or she is manifestly incurable, and can probably be rendered comfortable at the poor-house; so that the preference may be given, in the admission of patients, to recent cases, or cases of insanity of not over one year's duration. They may discharge and deliver any patient, except one under criminal charge as aforesaid, to his relatives or friends, who will undertake with good and approved sureties for his peaceable behavior, safe custody and comfortable maintenance, without further public charge. And the bond for such sureties shall be approved by the county judge of the county from which said patient was sent, and filed in the county clerk's office of said county. Upon the presentation of a certified copy thereof, the managers may discharge such patient.”

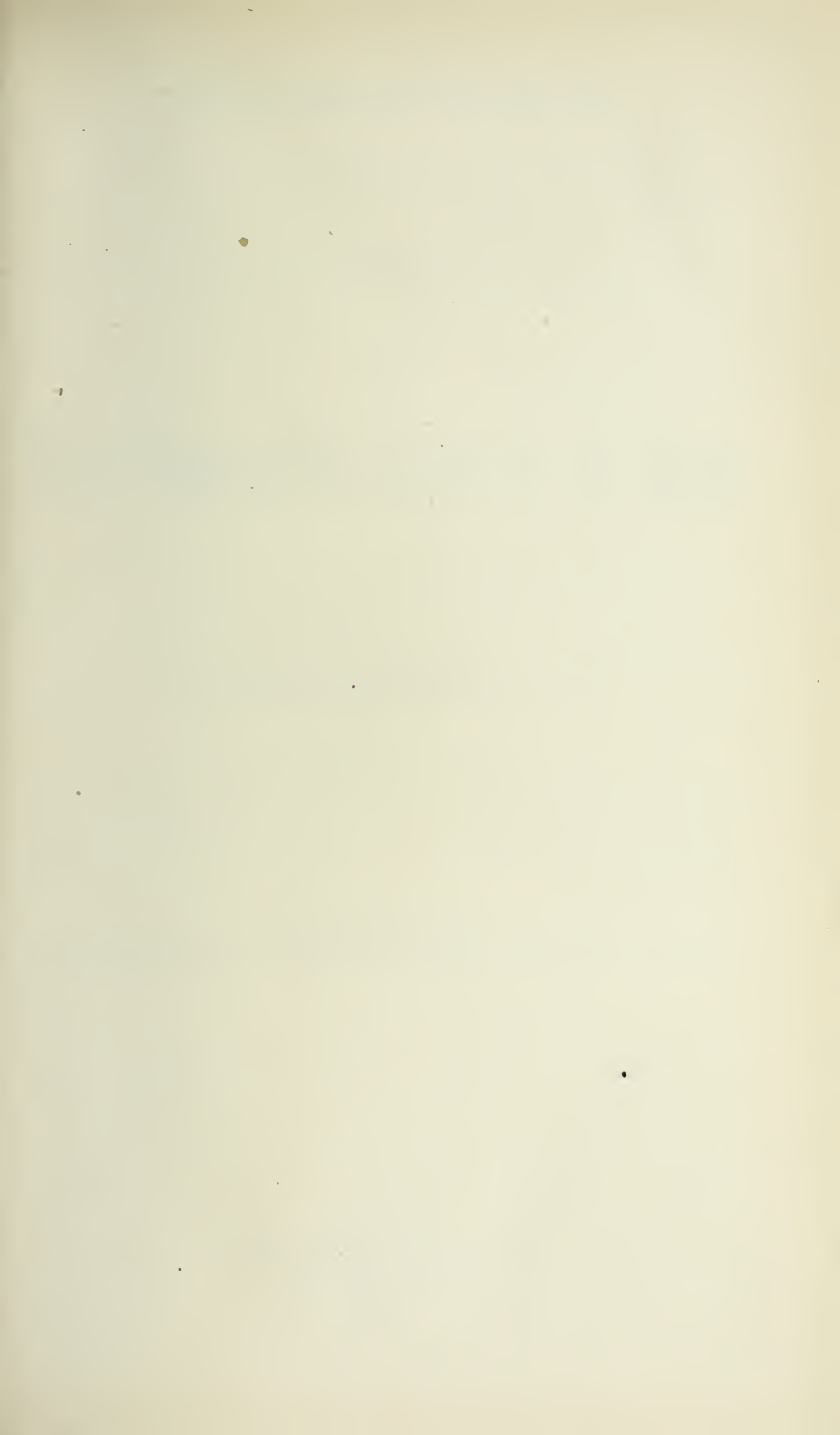
Bills are made out and transmitted quarterly in advance to county treasurers on the first days of January, April, July and October, by the treasurer of the asylum.

Patients should be brought to the asylum in a cleanly condition and free from vermin, *but not from county-houses or localities infected with small-pox, measles or contagious diseases.*

All patients require two suits of clothing adapted to the season, and should be brought by some person competent to furnish a history of the case.

Application for the admission of patients should be made before they are brought to the asylum. All correspondence concerning patients and the business of the asylum should be addressed to Dr. P. M. Wise, Willard, Seneca county, N. Y.

Letters are not written to friends of patients at stated intervals, but only in reply to inquiries and in case of sickness or death.



FOURTEENTH ANNUAL REPORT

OF THE

State Homœopathic Asylum for the Insane

AT MIDDLETOWN, N. Y.

TRANSMITTED TO THE LEGISLATURE JANUARY 14, 1885.

ALBANY :
WEED, PARSONS AND COMPANY,
LEGISLATIVE PRINTERS.
1885.

OFFICERS.

Trustees.

FLETCHER HARPER,	-	-	-	-	-	<i>President.</i>
GRINNELL BURT,	-	-	-	-	-	<i>Vice-President.</i>
M. D. STIVERS,	-	-	-	-	-	<i>Secretary.</i>
UZAL T. HAYES,	-	-	-	-	-	<i>Treasurer.</i>
Hon. WILLIAM H. CLARK,	Mr. HIRAM W. SIBLEY,					
Hon. HAMILTON FISH, <i>Jr.</i> ,	Hon. D. B. ST. JOHN,					
Hon. JAMES C. GRAHAM,	Hon. N. W. VAIL,					
EGBERT GUERNSEY, M. D.,	WILLIAM VANAMEE, Esq.,					
Hon. JOHN G. WILKIN.						

Officers of the Asylum.

SELDEN H. TALCOTT, A. M., M. D., Ph. D.,	<i>Med. Superintendent.</i>
ALONZO P. WILLIAMSON, M. D., -	<i>First Assistant Physician.</i>
C. SPENCER KINNEY, M. D., -	<i>Second Assistant Physician.</i>
JOHN COCHRAN, - - - - -	<i>Steward.</i>
H. J. LEONARD, <i>Assistant Steward.</i>	
JOHN C. WENMAN, <i>Clerk.</i>	

Supervisors.

W. E. COOK,	Miss M. A. CRANE,	Mrs. W. E. COOK.
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STATE OF NEW YORK.

No. 16.

IN ASSEMBLY,

JANUARY 14, 1885.

FOURTEENTH ANNUAL REPORT

OF THE STATE HOMŒOPATHIC ASYLUM FOR THE
INSANE AT MIDDLETOWN, N. Y.

MIDDLETOWN, N. Y., *January* 12, 1885.

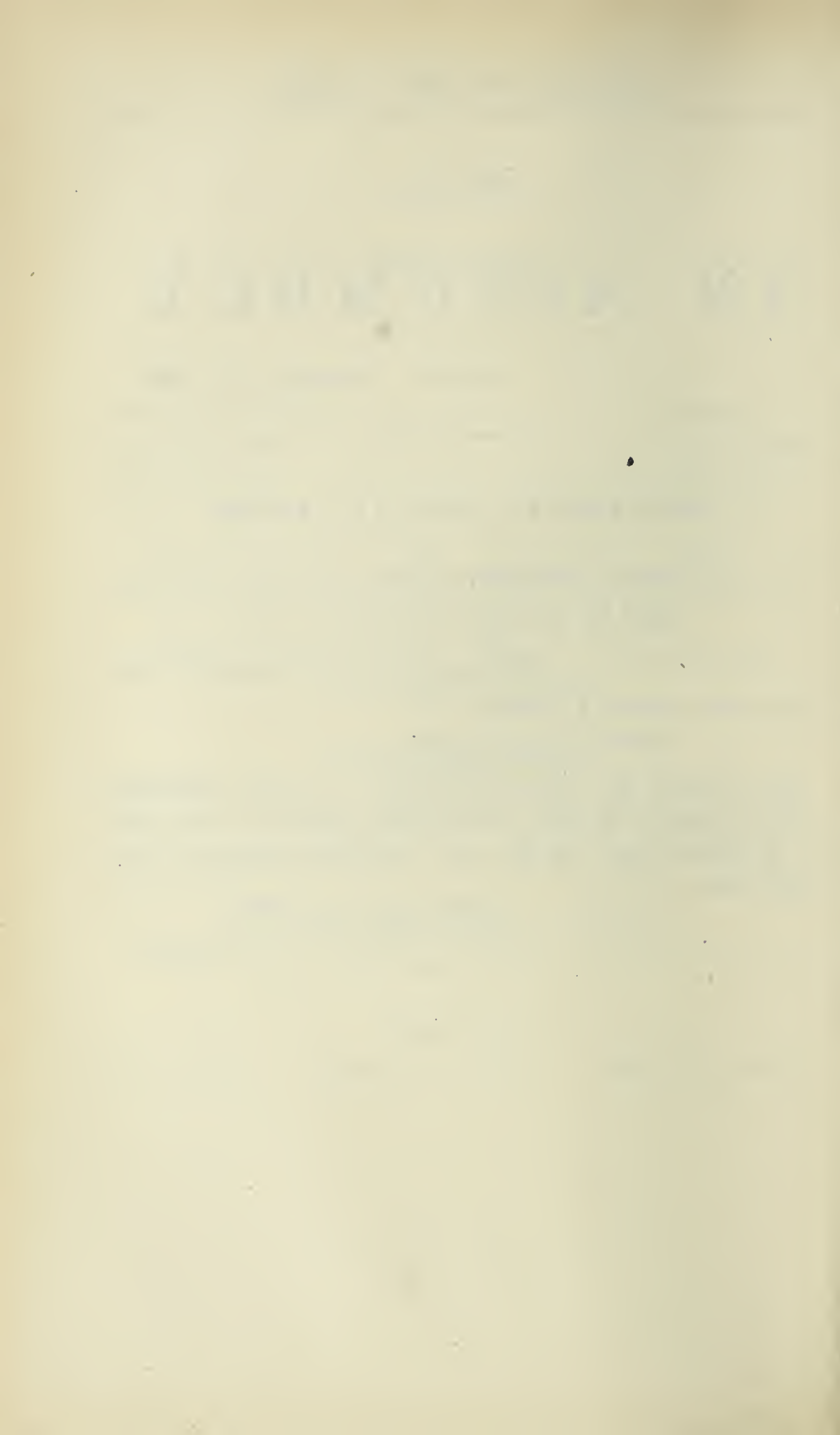
To the Hon. GEORGE Z. ERWIN,

Speaker of the Assembly :

SIR — I have the honor to transmit to you the Fourteenth Annual Report of the State Homœopathic Asylum for the Insane at Middletown, and beg that you will present the same to the Legislature.

FLETCHER HARPER,

President.



REPORT OF TRUSTEES.

To the Legislature of the State of New York :

The trustees of the State Homœopathic Asylum for the Insane, at Middletown, New York, herewith present to the State Legislature, in compliance with the requirements of the law, their fourteenth annual business report, accompanied, as usual, by the reports of the treasurer and the medical superintendent. This is the eleventh annual report concerning the care and treatment of patients. The first of these covered only a small fraction of a year. The remaining ten are full year reports, and record the first decade of practical experience. During the constructive period embracing three years prior to the completion of the main building, our annual reports consisted simply of financial statements to the Legislature. These were unpublished.

During the past ten years the board of trustees has been officered from year to year without change, except that Uzal T. Hayes succeeded Peter S. Hoe as treasurer, upon the latter's resignation in 1876. The board of trustees has sustained some losses by resignation. The vacancies thus created have been filled with new appointments by the governor. During the past year no change in the board of trustees has occurred. The medical staff of the asylum likewise remains unchanged.

The honor of a trusteeship in an asylum is a pleasant one, for it reflects the confidence which the chief executive of the State, and the senatorial body repose in the man selected for such a position. With this honor comes a serious responsibility, a responsibility which is discharged only when an important duty towards the helpless insane has been conscientiously performed. We believe that the duties of the board of trustees at this asylum have been discharged with unswerving fidelity during the year just ended. In addition to the regular quarterly meetings, at which the attendance has always been large, there have been made to the asylum more than fifty extra visits by various members of the board. These visits have occurred at irregular intervals, without previous notice to the asylum

staff, and at all hours of the day and evening. Thus was afforded an opportunity for the discovery of neglect or carelessness on the part of those having the asylum in immediate charge. In the records made by members of the board, in a book kept for that purpose, we find no evidence of carelessness, or neglect, or of improper or unkind treatment of patients. It affords us pleasure to state that we have, as a rule, found the workers at the asylum energetic, devoted, and self-forgetful in the discharge of their onerous and delicate duties. That the efforts of the medical staff have been successful we need only to state the fact that the percentage of recoveries during the year ending September 30, 1884, is larger, with one exception, than during any previous full years' experience in the history of the asylum. The death rate is very moderate, being less than five per cent upon the whole number under treatment.

IMPROVEMENTS AND PRODUCTIONS.

To the medical superintendent is assigned the task of portraying the workings of the institution and the results attained, so far as the inmates themselves are concerned. It is the duty of the trustees to report each year to the Legislature the various changes and improvements which have been made in and about the buildings; to state the productions which a careful industry has secured from the farm and the garden, and in the shops and sewing rooms; and, likewise, to call attention to appropriations needed for the further improvement and perfection of the institution.

1. *Asylum buildings.*—Throughout the buildings a system of electric call-bells has been placed. This enables prompt and satisfactory communication from the central offices to the supervisors' offices, and from these to each and every ward in the house. The workshops, the boiler house and the engineer's house are also connected with the central office in the same way. The night watchers in each building record their fidelity upon an electric time-indicator, situated in the physician's office. These improvements are very valuable and satisfactory in their operation.

The steam coils in pavilion No. 2 have been recased and perfected in such a manner as to insure a more equitable distribution of heat throughout the building.

New guards have been placed upon the windows of the upper wards in the administrative building; and most of the guards throughout the establishment have been reset with safety screws, and strengthened where a better security has seemed desirable.

New hydrants have been placed near pavilion No. 2 for its better protection from fire.

The walls of the water-closets, water-sections and bath-rooms in the three buildings have been repainted or kalsomined. Also the main stairways, several of the dining-rooms, and some of the sleeping-rooms have been improved by appropriate painting.

All of the roofs of the asylum have been overhauled and repaired; in short, the carpenter, engineer, plumber and painter have been kept busily at work repairing, improving, strengthening and beautifying both the interior and exterior, wherever changes were necessary or desirable.

2. *Outbuildings and minor improvements.*— Since the presentation of our last annual report, a new drying-room and ironing-room has been completed in the laundry. New machinery has been placed in the laundry as follows: One reversing rotary washing-machine, one centrifugal extractor, one ternary mangle, one reversing combined steam-ironer, one Tyler's polisher, and one stove for heating irons. The laundry engine has been repaired, and its power increased by speeding up and enlarging pullies.

The north wing of the boiler house has been reroofed; the steam pumps have been repaired; new steam and water connections have been substituted for those worn out on three of the boilers; a new steam coil was placed in one of the hot-water boilers. New and larger pipe was put in pavilion No. 2 to increase the water supply of that building. New locks have taken the place of old ones in the main building, and in some portions of pavilion No. 1.

The green houses have been painted both within and without. In the propagating house the old benches were removed, and in their place benches supported by brick piers and iron bars have been substituted.

All the old farm buildings have been repaired and painted; also the farm house and the fences in front of the same.

A new vegetable cellar has been constructed; two new watering-troughs have been made; seven new ironing tables were constructed for the laundry; one new meat table for the kitchen; two new tables, and new sinks, and a new floor in the canning department; five new water-closets were made by the carpenter; also three new swinging-doors for the kitchen; new hay-racks and new gates for the farmer; a new slop-sink and table-top for the kitchen; a new milk-cart for the dairy; new screens for the hospital; new doors for the ice-house; new step-ladders for the wards; new floors in the

horse stalls, and numerous other articles were made by the carpenter.

The wells supplying the institution with drinking water have been built up with brick and cement from the base to a height of three or four feet above the surrounding surface, and around this solid curb a mound has been constructed and turfed so as to prevent surface water from running into the wells. The drinking water for the patients is now pure and free from the possibility of all extraneous contaminations.

3. *Park*.—The grounds both in front and rear, and on the south side of pavilion No. 2, have been carefully graded and filled in. This was accomplished with such help as we could muster from time to time when the farm and other work was not pressing. A decided improvement was thus effected, at very moderate expense. Some of the patients have been engaged in raking the earth, and in smoothing the grounds thus improved.

The grounds in front of the asylum buildings have been kept in excellent condition by the florist who has them in charge. Nearly thirty thousand plants have adorned the large beds which are scattered over the park. The grass upon the lawn has been frequently cut, and a constantly improving turf thus secured. The small trees and shrubbery set out some three or four years since have made healthful growth during the past season.

4. *Farm*.—The farm, consisting of 211 acres, is now stocked with 30 cows, 8 horses, 3 yearling heifers, 4 calves, and one bull. About 100 pigs are also raised each year. The most noticeable products of the farm are: 61,120 quarts of milk, 1,700 bushels of potatoes, 1,500 bushels of turnips, 400 bushels of onions, 262 bushels of oats and 90 tons of hay. The value of the beef, veal and pork fattened for use here or sold for cash, amounts to over \$1,200. The young orchard has produced 24 barrels of selected apples and enough small or imperfect fruit to make 10 barrels of cider. There has been laid 44 rods of new stone wall on the farm, and 165 rods of stone underdrains have been put down.

5. *Garden*.—About five acres of our best land is devoted to garden purposes. From these five acres have been raised about 2,500 bushels of the smaller green vegetables, and in addition, 8,400 ears of sweet-corn, 6,550 heads of cabbage, 6230 heads of celery, and 2,300 quarts of currants, raspberries, and gooseberries. If all the products of the garden were measured in bushels a production of over 1,000 bushels per acre would be shown.

6. *Domestic.*— Most of the fresh vegetables and fruits produced from the garden and upon the farm, are consumed, as fast as matured, by the asylum inmates. Whenever a surplus exists the same is preserved in cans or jars for winter use. Thus we have put up 600 gallons of fresh tomatoes, 520 gallons of catsup, 874 quarts of small fruits, 200 pints of jellies, and nine and one half barrels of pickles.

In the sewing rooms, in addition to an immense amount of mending old clothes, there have been made 3,402 new articles for use in the house. These articles range in importance from large carpets to diminutive washrags. The most important articles manufactured are: Dresses, skirts, sheets, pillow-slips, bed-ticks, towels, bedspreads, window curtains and tablecloths.

The foregoing statements develop the various improvements, productions and manufactures of the institution. The showing proves the care and labor bestowed toward the upbuilding and preservation of the establishment. It likewise proves the abundance of farm and garden products; and it also demonstrates the fact that the patients themselves have not been altogether idle, but that many fingers have been kept busily employed in such occupations as they were most accustomed to when in a state of health. We point with some pride to the aggregate results gained from the garden and farm. With accumulated resources, every patient is supplied, daily throughout the year, with from two to four varieties of vegetables each day for dinner. The supply of milk has been quite abundant, but there is always a full demand for all that can be produced. There is no article of diet more valuable, or more necessary than milk for the maintenance of the insane.

COMMITTEE WORK.

The work of financial management, of inspection, and of general direction and oversight is performed by the following committees:

Executive committee. — Vanamee, Hayes and Wilkin.

Farm and building committee. — Vail, Burt and Wilkin.

Visiting committee. — Guernsey, Graham and Wilkin.

These committees have made numerous visits to the asylum, and have devoted much time and pains-taking care to the conduct of the institution. Their work has been performed cheerfully, generously and thoroughly, without money and without price. Those who are without experience can know but little of the responsibilities which

the position of trustee imposes. These responsibilities have been honestly and fully assumed, as the time and toil which the working members of our committees have bestowed abundantly demonstrates.

OUR NECESSITIES.

Last year we made requests for various improvements in and about the institution. No appropriations were secured. The same necessity for improvements exist now as existed then. We present this year a list of wants similar to the one presented last year. It is as follows :

New day rooms.....	\$50, 000 00
Walls and covered terraces for protection of exercise grounds.....	8, 000 00
Furnishing wards.....	4, 000 00
Books and instruments	1, 000 00
Total	<u>\$63, 000 00</u>

The above list has been selected with great care, and we believe that the best interests of the asylum imperatively demand the improvements suggested.

Last year the medical superintendent made the following statements relative to the necessity for day rooms, and protective terraces for the exercise grounds. "We find that the short halls in each pavilion, where our most disturbed patients are kept, are not suitably provided with rooms in which patients can exercise with freedom during the day. This lack can be supplied by the erection of large and sunny "day rooms" at the end of each short hall. In securing these day rooms for our excitable patients, we simply imitate the asylums of Great Britain and France, where, in some respects, the methods of caring for the insane have been pushed to a high degree of perfection.

During a recent visit to fifteen foreign asylums, I found that the day rooms for patients were pointed out with most commendable pride; and the superintendents of these asylums assured me that in no other way could patients be so carefully guarded, so thoroughly diverted and interested in some light employment or amusement, as by the use of these day rooms where means for amusement or occupation were constantly and fully supplied.

By placing the patients during the day in these large and airy rooms there is afforded abundant opportunity to ventilate and cleanse the halls, corridors, and sleeping-rooms; and this is a great point of

advantage, as the constant supply of fresh air is a recognized necessity to every human being whether sane or insane.

We urge upon your honorable board the careful consideration of this proposed measure, and an early attention to this important improvement.

Again we repeat, as we have urged before, that we need large and suitable airing courts, protected by walls and covered terraces. Our patients may thus have the benefit of constant exercise in the open air, and may be easily watched over and protected with a limited number of attendants.

The open-door system may be readily practiced if the airing courts are suitably constructed. Between the airing courts, which we should have in the rear of each pavilion, there is a large open space occupied by the green-houses, the boiler-house, and the laundry. We have many workers in these places, and we might have a still larger number employed if these buildings and grounds were inclosed by a high picket fence. One watchman to guard the gates could then perform the duty now assigned to three or four special attendants.

This fence would then answer both as a protection to the patients and a safe-guard against escapes and suicides, and would likewise tend to restrain some who are inclined to intrude their uninvited presence, and to loaf among the patients and employees of the institution." We now repeat and emphasize these suggestions, which were made one year ago.

CONCLUSION.

In this report we have presented an outline of the improvements and productions which tend to make this institution both satisfactory and successful. The physical condition of affairs is thus revealed. The financial status is shown in the treasurer's report, and the general outline of our ten year's work, of caring for the insane, is given in the superintendent's report.

All these reports are respectfully submitted to the Legislature of the State of New York, in the hope that in themselves they will be convincing arguments that the labors of those who have the general supervision, and of those who have immediate charge, and of those who fulfill the practical duties pertaining to each department in and about the institution, have been well and thoroughly performed.

Very respectfully,

FLETCHER HARPER,

President.

“ A ”

TREASURER'S REPORT.

Dr.

1884.

To cash on hand September 30, 1883.....	\$14,788 61
To cash from State Comptroller.....	13,000 00
To cash from patients	84,344 05
To cash from patients for clothing.....	3,389 08
To cash from patients for housefurnishing.....	355 60
To cash from interest on deposits	531 48
To cash from farm produce sold.....	235 19
To cash from medical supplies sold.....	3 50
To cash from fuel sold.....	181 55
To cash from building material sold.....	76 85
To cash from engineer's supplies sold.....	7 55
To cash from stationery sold.....	9 51
To cash from steward's supplies sold.....	415 11
	<hr/>
	\$117,338 08
September 30, to balance (cash on hand).....	\$17,598 31
	<hr/> <hr/>

Cr.

1884.

By cash paid for steward's supplies.....	\$27,193 65
By cash paid for medical supplies.....	953 05
By cash paid for clothing	3,422 80
By cash paid for housefurnishing.....	6,033 12
By cash paid for fuel.....	8,398 63
By cash paid for building repairs.....	3,964 75
By cash paid for engineer's supplies.....	1,896 48
By cash paid for salaries	8,000 00
By cash paid for wages.....	19,759 69
By cash paid for travel	249 08
By cash paid for postage and stationery	749 77
By cash paid for farm expenses	5,492 35
By cash paid for laundry improvements.....	4,398 50
By cash paid for grading grounds.....	4,329 85
By cash paid for altering water-closets	1,455 00

1884.

By cash paid for new floor in basement	\$730 08
By cash paid for legal expenses	241 37
By cash paid for coping wall at entrance.....	807 10
By cash paid for hydrants for Pavilion No. 2.....	300 00
By cash paid for farm stock.....	300 00
By cash paid for electric bells and clock.....	439 85
By cash paid for chaplain.....	260 00
By cash paid for board refunded.....	364 65
By balance (cash on hand).....	17,598 31
	<hr/>
	\$117,338 08
	<hr/>

At a meeting of the executive committee, held this day at the State Homœopathic Asylum for the Insane, Middletown, N. Y., the foregoing report of the treasurer was examined, duly compared with his vouchers, and the same was found to be correctly stated and balanced.

Dated, MIDDLETOWN, *December* 26, 1884.

WILLIAM VANAMEE,
Chairman.

“ B ”

SUPERINTENDENT'S REPORT.

To the Board of Trustees :

GENTLEMEN : For the eighth time I have the honor of presenting, for your consideration, the annual report concerning the workings of this institution.

According to custom, we first make record of the results of treatment during the year ending September 30, 1884.

These results are tabulated as follows :

	Males.	Females.	Total.
Number present at beginning of year.....	136	124	260
Number admitted within the year.....	86	77	163
Whole number present within the year.... .	222	201	423
Number discharged as recovered.....	38	30	68
Number discharged as improved.....	10	6	16
Number discharged as unimproved.....	22	13	35
Deaths.....	14	7	21
Eloped.....	1	...	1
Remaining at end of year.....	137	146	283
Maximum number within the year.....	...	...	313
Minimum number within the year.....	...	...	256
Daily average.....	145	144	289
Percentage of recoveries on number discharged. ...	...	...	48.22
Percentage of deaths on whole number treated. ...	...	...	4.9
	=====	=====	=====

Comment upon the records of the past year is unnecessary in this connection. We propose, instead to consider the accumulated experiences of the past decade.

On the 20th of May, 1874, this asylum received its first patient. Since then, over 1,500 patients have been admitted for treatment. Ten years' work in behalf of the insane was completed in May last. It now seems proper that a careful review of this work should be made. We shall therefore endeavor to describe as briefly as possible the material with which we have wrought ; the means, measures and methods adopted, and the results which have finally been attained. In covering the records of the past we shall present a brief historical summary of the asylum's life ; we shall speak of the system which prevails in this State for the care of the insane, suggesting such adherence to, or change from the present method, as may to us

seem wise; we shall speak of the organization under which this asylum is managed; we shall speak of the daily routine of duty which belongs to each officer and servant of the institution; we shall state every form of care employed, hygienic, dietetic, medical, moral and sanitary, and we shall declare the effects produced by the application of such measures as have to us seemed most likely to effect permanent recoveries of the insane. We shall also give a brief synopsis of certain conclusions relative to insanity, reached through experience, and we shall likewise endeavor to discuss, from a practical standpoint, some of the chief causes of this disease; and, as a matter of public duty, point out the surest and best methods of avoiding those dangers to mental health which obtrude themselves upon every active American community.

HISTORICAL.

It may be interesting to the friends of this asylum to know that the institution was organized in 1869, by Dr. George F. Foote, who endeavored at the outset to raise money by subscription for a private asylum, in which homœopathic treatment of the insane might prevail. To this end about \$75,000 were subscribed.

A site was purchased; a plan determined upon; and the foundation walls begun. Finally, an appeal for funds wherewith to complete the institution was made to the State Legislature. The fruits of private enterprise were accepted by the State authorities as a nucleus around which, under State patronage, the asylum has grown to its present proportions. Founded upon individual benevolence, it passed as a free will offering to the fostering care of the commonwealth. While the State now owns the asylum, and while that ownership has been perfected by large appropriations, there yet remains a debt of gratitude to those who, by their timely gifts, made the project at the outset a feasible possibility. The State has accepted a special donation from some of her most philanthropic citizens, and it will unquestionably respect the memories and the rights of those philanthropists who planned and promoted, so far as possible, the best interests of this institution while in its infancy. The implied obligation of furnishing a homœopathic asylum to all who desire the benefits of homœopathic treatment will, we believe, be conscientiously fulfilled by the State of New York.

The terms of the first appropriation, in 1870, were such as to convert the asylum into a State institution. This institution was designated as "The State Homœopathic Asylum for the Insane, at Middletown." Twenty-one trustees, to act as a board of managers, were appointed by the Governor and confirmed by the Senate. Subsequently, other appropriations were made for buildings, until the aggregate at the present time is \$607,137.52. With the foregoing sums there have been provided accommodations for about four hundred patients. The three buildings comprising the institution are constructed of brick and Ohio sandstone. The roofs are slate and tin. Each building has stone stairways for exit, and the

asylum is as nearly as possible fireproof. The wards and rooms are completed in hard-finish, and native woods; and every portion of the structure is thoroughly lighted and carefully ventilated. The main halls are supplied (in addition to bed-rooms, bath-rooms, and water-closets), with suitable day-rooms dining-rooms, and dormitories. The short halls, for disturbed patients, have dining-rooms, but no suitable day-rooms.

The administrative building was completed and opened for the reception of patients on the 20th of April, 1874. The first superintendent, Dr. Foote, having resigned, Dr. Henry R. Stiles, of New York, was appointed in his stead. He served until February 9, 1877, and then resigned. Soon after his resignation, Dr. Selden H. Talcott, the present incumbent, was appointed medical superintendent.

The first officers of the board of trustees were: Fletcher Harper, President; Grinnell Burt, Vice-President; Peter S. Hoe, Treasurer; M. D. Stivers, Secretary. The only change in this corps of officers was due to the resignation of Peter S. Hoe, as Treasurer, and the appointment of Uzal T. Hayes as his successor.

In 1875 the board of trustees was reduced from twenty-one to thirteen. The names of the present board appear upon the title-page of this report. Upon the same page will be found the names and official positions of the asylum staff.

While, at the outset, some aid for maintenance was required from the State (as is the case generally in new institutions) it may be remarked that for more than seven years the institution has been thoroughly self-sustaining. In addition to the regular sources of maintenance from counties and from private patients, we may state that numerous contributions to the improvement of the grounds, to the beautifying of the wards, to the furnishing of some of the rooms, to the affording of current literature to the patients, and to the stocking of the greenhouse have been made by generous friends of homœopathy throughout the State.

While the main building was opened in 1874, pavilion No. 1 was not finished till 1876, and pavilion No. 2 remained uncompleted, from lack of appropriations, until the summer of 1881. It is plainly apparent that many difficulties have beset the managers and officers of the asylum while attempting to receive and care for patients in an unfinished and incomplete institution. Practically, the asylum has been in fair running order for but three years. Previous to 1881 there was great lack of facilities for the proper classification and care of patients. Even now, experience demonstrates the necessity for some improvements which are rigidly required, but for which appropriations have not yet been made. With the sums already received from the State, there have been provided at this asylum comfortable accommodations for 400 insane at the very reasonable cost of \$1,517.84 per patient. Besides the buildings for patients, there have been constructed, during the past seven years, an engineer's house, a dormitory for the kitchen and laundry help, three additions to the boiler-house and laundry, a new brick smoke-stack, three new green-

houses, a large barn and cow-house, a carriage-house, an ice-house, and a new vegetable cellar. During this period all the buildings have been completed, invariably, with the sum or sums originally asked for by the trustees. Wise economy and strict honesty in the administration of affairs have been demonstrated in the history of this asylum. From long observation I am impelled to state that the trustees have always and universally manifested an earnest desire to command the confidence of the people by the judiciousness and wisdom of their administration.

THE NEW YORK SYSTEM FOR CARING FOR THE INSANE.

During the past few years the question : "How may the insane of this commonwealth be best cared for," has been most amply discussed. Much criticism upon present methods has been expressed ; many suggestions, based too often upon ignorance and prejudice, have been made ; reforms, which are not reforms, but simply radical divergences from present substantial and successful methods, have been advocated, and still the agitation goes on. That intelligent and unbiased people may comprehend and understand this important question, we will briefly review the design and scope of the present system, and contrast that system with the design and scope of some proposed reforms.

There are four State asylums in New York for the treatment of the acute insane. The oldest is located at Utica ; the others are situated at Poughkeepsie, at Middletown, and at Buffalo. The law provides, first and specially, for the care of pauper and indigent insane. These are sent to asylums upon orders signed by superintendents of the poor or by county judges. The pauper and indigent insane after receiving medical treatment in these asylums for a period of two years are then, if pronounced incurable, transferred to one of the asylums for the chronic insane. These latter are located at Ovid and at Binghamton. The authorities of asylums for the acute insane may, after receiving and caring for all pauper and indigent patients sent to them by counties and cities, admit for treatment private patients — that is those who are supported by their friends, or by funds from their own estate. By the system now in vogue, the unfortunate insane of every class, from the poorest down to the richest, may be admitted to, and receive care and treatment in, these New York State asylums for the acute insane. This plan is broad and generous, catholic and just. No one of the insane is debarred from the privileges which these institutions afford. The only exception to this rule is where cities and counties have been permitted by law to care for their pauper insane at home. This exception applies chiefly to the chronic insane. The counties of New York and Kings, however, are allowed, rather unwisely perhaps, to care for their insane, both acute and chronic, within their county limits. The asylums for the acute insane in New York and Kings counties should be under State control and maintained with proper and generous appointments by State liberality.

Each of the present State asylums is under the direct management of a board of trustees, selected from among the best citizens in the community where the asylum is located. These trustees are nominated by the Governor and confirmed by the Senate, in due and regular form. Unworthy men may be rejected at the outset, or, if appointed, may be removed for cause. Again, bad men may be displaced and good ones substituted upon the expiration of the former's brief term of office. The board of trustees, charged as it is with a grave and solemn responsibility, has, very properly, the sole appointment of the asylum staff. The head of this staff is the medical superintendent. Heretofore, upon the superintendent's nomination, the trustees appointed the necessary number of assistant physicians, also a steward, and a matron. Under the civil service law these appointments will hereafter be made after competitive or other examinations. While such examinations for appointment should be sufficiently rigid to insure able and efficient workers, we believe that the competitors for such positions should be limited to those recommended by the superintendent. Otherwise the harmony and stability of the medical staff might be impaired by the enforced introduction of discordant elements.

The superintendent, as the responsible head of the establishment, might be compelled to recommend for examination at least three applicants for each position; but with the responsibility of his position should go the right of selecting, to a certain extent, his subordinate officers, and his wishes in this matter should receive a natural and just respect.

The superintendent and first assistant physician should be appointed from those who have had previous experience in the care of the insane; the other physicians might be selected from those who have had a thorough, general hospital experience.

Under the present system the medical superintendent appoints all employees subordinate to the staff, after an examination of their qualifications by a local board of examiners charged with this duty by the civil service State board of examiners. We are strongly in favor of this method of examining applicants for positions before affording them employment. The superintendent reprimands or dismisses from service at will such employees as fail in the performance of their appointed duties, or those who violate the rules of the institution.

These State asylums, besides being watched over by the board of trustees, are also subject to thorough visitation by the State Board of Charities, by the State Commissioner in Lunacy, by county superintendents of the poor, by county boards of supervisors, by grand juries, by friends of patients, and, with willingness on our part, by the public generally. These asylums are also subject to such examinations and inspections as the Governor of the State, or the State Legislature itself, may direct. The question sometimes arises: "Is there not a reasonable limit to investigations and visitations?" If they are carried beyond a reasonable limit may they not divert, distract, and harass the efforts of those in charge of these

institutions, and in reality impair or tend to destroy the efficiency of their labors in behalf of the insane?

The financial operations of these asylums are subject to inspection by the executive committee of the board of trustees, by the comptroller of the State, by persons appointed by the Governor specially for that purpose, by members of the State Board of Charities, and by the State Commissioner in Lunacy; at least, the aforementioned bodies and individuals have at all times free access to the books of this institution.

The funds for the maintenance of these asylums are derived from counties and cities, and from friends of private patients. Terms to counties are stated in our annual reports and are known and approved by superintendents of the poor, by county judges, and by boards of supervisors. All these authorities are fully aware of the charges to be made when patients are brought to these institutions. The friends of private patients make terms with the authorities of the asylum, in each case, and such terms are mutually agreed upon as satisfactory. County patients are boarded and cared for in a manner which meets the approval of the county authorities. Private patients are maintained in a manner which comports with their former style of living, and in accordance with the necessities of each individual case, and payments are made accordingly. If friends so desire, and are willing to pay for them, luxuries of many varieties are furnished. This plan of maintaining patients is based upon principles of equity, and is in accordance with a duty which we believe the State owes to her citizens, and that is to see to it that every individual laboring under the temporary loss of the powers of self-control should have such care, comfort, and treatment as may best conduce to the restoration of physical and mental health. To be surrounded with such comforts as he has hitherto been accustomed to enjoy, and which his friends willingly pay for, is to exercise a simple act of justice. The State should not only guard the life and property of her sane citizens, but the ægis of her power should, in particular, be thrown about every citizen who may suffer from the visitation of insanity. All the insane should be freely admitted to our State asylums, and carefully guarded against the possible encroachments of unwarrantable avarice. Avarice finds one of its most attractive fields of action among the helpless victims of mental misfortune.

Those in moderate circumstances should be enabled to send patients to State asylums at the lowest practicable rates. When I assumed charge of this asylum seven years ago, the lowest rates for private patients were \$6 per week. Now we admit them at rates as low as \$4 per week. This stimulates self-reliance on the part of those who must send their friends to an asylum. Such a plan prevents pauperism. Several of our patients would long since have been pauperized had we been unable to reduce the rates. These

moderate charges will account, to a considerable extent, for the large number of private patients at this asylum.

It has been claimed that the present system is faulty and tending to extravagance. It has been proposed that all funds received by State asylums, for board and care of patients, should be turned over to some central authority, and that all supplies needed for these institutions should be derived from a central source. The establishment of a circumlocution office would, in our opinion, be disastrous to the often urgent wants and necessities of the insane. If established, the pen of some future Dickens would, by-and-by, be invoked to portray its disadvantages. Were all the insane of the State to be maintained upon a pauper basis, and were private patients absolutely excluded from the wards of our State asylums, then the plan of distributing supplies for these institutions from a central store-house might be made practicable, even if not an extraordinary improvement upon present methods. But so long as these institutions open their doors for the reception of the insane from the middle and upper classes, as well as those who are fished out of the slough of poverty, so long, we believe, the present method should remain in vogue. That the present method may be improved upon we have no doubt; but the destruction of a liberal and generous principle is not necessary to its practical improvement. The ordinary and coarser staple articles of diet might be secured at somewhat reduced rates by the purchase of large quantities through a central purchasing agency; but the delicacies and luxuries required by private patients, in small quantities and at irregular intervals, could not be easily or properly procured from such a source. The establishment of a central agency would incur the usual expenses of a new office, and would not afford a reduction of the force necessary to direct affairs at each asylum.

The present system offers privileges of special and equitable contracts with those who are charged with the duty of maintaining the insane of the middle and upper classes. If the State furnishes suitable and proper facilities for the care of every class of the insane, it then protects from the imposition of excessive charges by those who might attempt to care for the insane in a private way. That a tendency to over-reach the victims of insanity by private individuals does sometimes exist, we have only to refer to the experiences of this class in England. Moreover, it is clear that our State asylums may be more closely watched than private institutions, protected as the latter are to a certain degree by the theory that "every man's house is his castle." Likewise, the abuse of retaining patients after recovery may be more readily discovered and corrected in State than in private asylums. Against the abuses of extortion and unnecessary detention, and of those corrupting influences which creep in where avarice is permitted to feed upon misfortune, the powerful pens of such men as Captain Marryatt, Charles Reade and Charles Dickens

have been effectually wielded. To prevent such abuses within her borders, the State of New York should provide accommodations for all who are in need of asylum treatment. It has been asserted that the State has no right to compete with private citizens in any enterprise. Where the work of the State or her wards competes unfairly with labor in ordinary fields of industry, depriving, to a certain extent, the laborer of his well-earned wages, this theory is true; but when avaricious thrift seeks to feed upon misfortune, misfortune that springs from insanity, then we claim that the State has not only a right to interfere in behalf of such victims, but she has a duty to perform by affording them the amplest and most complete protection.

It is easy to see how private patients would be removed from our asylums if they were to be reduced to the level of a pauper basis in care and treatment. It is easy to perceive the train of evils that would rush in if constrictive influences were allowed to control and rule our State asylums. The experiences of Ohio, Wisconsin, and other states demonstrate the truth of this assertion. A central authority might not always appreciate the particular wants and necessities of each individual asylum. Therefore, local rule is preferable. Especially is this true with regard to the Homœopathic Asylum. It was founded for the express and specific purpose of affording homœopathic treatment to all who desire it, regardless of their station in life, or of their locality in the State.

Much stress has been laid upon the advantages which some foreign asylums have over our own. We believe in acquiring and in utilizing the finest qualities and advantages of the best asylums in Great Britain, and on the continent. We do not believe in halts or in retrogressions. Upon careful examination, we find that the present system, in this State, of maintaining properly the patients of every class that the community may afford is the one that is established and in vogue in the most famous asylums of Great Britain and France. We may mention, in particular, the Royal Edinburgh Asylum at Morningside. The aim and scope of that institution are well portrayed by Dr. Clouston, the eminent medical superintendent, in the following statements excerpted from the annual report for the year 1882:—"For the first time since I have been at the head of the asylum have I been able, as I have been during the last three months of the year, to admit every patient who applied for admission at any rate of board. To me this was a source of the greatest satisfaction." In the above-named asylum the poor insane are received from parishes at very moderate rates, while the wealthy and those in moderate circumstances are received for sums proportioned to the care, comfort, and luxury required.

The same method is in vogue at the Bethlem hospital in London, where for more than three hundred years the insane of Britain's great city have been received and treated for their mental disorders. In Bethlem both free patients and pay patients are received and treated; the only general qualification required is that the case must be recent, and consequently likely to be cured.

At the National House of Charenton, near Paris, a noble institution for the treatment of mental diseases, and designed as a model in every respect for all France, patients are admitted at prices ranging from \$200 up to 1,000 or more per annum. The former sum is a little less than we charge for county patients, while the latter nearly equals the sums charged for private patients with special attendants. The wages of attendants are much lower in France than in this country ; hence the cost of maintaining private patients is less there than here.

Thus it will be seen that the beneficent method practiced by the most famous asylums of Europe, of caring for all classes of the acute insane, has already been adopted and is successfully in vogue in this State of New York, and we feel most positively that it is the unquestionable and imperative duty of this State to continue to provide for all those unfortunate citizens who may need them, the beneficent advantages of large, well-regulated, well-equipped, and well-watched asylums. It should grant admission to every applicant whose case presents the slightest hope for improvement or cure ; it should furnish each patient admitted those comforts which a generous charity dictates, and, likewise, to patients who care to pay for them, those luxuries to which they have hitherto been accustomed, or to which, by their position and means, they are justly entitled. Whatever may in any degree tend to the speedy and prompt restoration of mental invalids should be furnished or permitted. The State should erect and maintain the buildings, and then offer full facilities of unhampered admission to those who may need treatment. It should leave to local legislatures, and superintendents of the poor, the care and maintenance of pauper and indigent insane, upon such terms as they may make with mutual satisfaction to themselves and to the managers of our State asylums. A change from this plan should only be inaugurated when local legislatures and local authorities appeal to the State Legislature for aid in this direction, after they have failed by their own efforts to make satisfactory terms for the care of their insane poor with these State institutions.

It should be recognized as an axiom that private asylums for the insane are a luxury in which those who desire may indulge ; but a more powerful axiom is this : *State asylums are a necessity for both the rich and the poor, and this necessity should never be denied, ignored, or disregarded.* Checks against extravagance and guarantees of honest administration, should be found in the action of capable and energetic trustees, in wise visitations by State boards of charities and the State Commissioner in Lunacy, and by the watchfulness of county boards of supervisors, superintendents of the poor and county judges. These latter, being directly responsible to their constituents for the wise and economical maintenance of the insane, should make terms directly with the asylums, and as they are before the people and of the people they will naturally work for the best interests of themselves and their immediate constituents.

Beyond the local inspectors of all expenditures for the pauper and indigent insane stands, under the present law, the State Comptroller, to whom are submitted all bills and items of current expense. This State officer has every facility for examination and criticism. If any expenditure seems unwise or unnecessary, an explanation is at once called for by this State official.

The laws of commitment, by medical examinations and approvals by judges of courts of record, were codified in 1874, and are, in the main, satisfactory. An improvement might be effected by requiring *seven* years' practice instead of *three*, before a physician could be appointed a medical examiner in lunacy. In seven years a physician's reputation would be established in a community. Only those of the highest character for honesty and ability should receive appointments as medical examiners; and appointments should emanate only from judges of the supreme court.

We believe that a full examination and candid consideration of the present system will convince reasonable and thinking men of its wisdom and efficiency. We believe that changes from a good and successful system should be made with hesitancy and great caution. Continual improvement and progress should be the demand and order of the day, but iconoclasm is sometimes blind and almost always dangerous.

From a brief explanation and discussion of the present State system we pass to the consideration of another point of interest, viz.:

ASYLUM ORGANIZATION.

This institution is managed by a board of trustees appointed by the Governor and confirmed by the Senate, and they are responsible before the people for expenditures made, and for the practical results attained. The board of this asylum is composed of thirteen individuals. The officers are a president, a vice-president, a secretary, and a treasurer. Special duties are assigned to the various members of the board, who are appointed upon committees for the performance of particular duties. These committees are three in number, and are named: the executive committee, the farm and building committee, and the visiting committee. The executive committee examines and passes upon every bill before it can be paid. The farm and building committee have charge of all constructions and improvements. All extraordinary repairs in and about the asylum, and all fencing, grading and other changes on the farm are submitted, before final action, to this committee. Changes and repairs immediately required for the safety and comfort of inmates, as well as those submitted to the committee, are directed by the medical superintendent. The visiting committee make inspections of the wards at frequent intervals, and note the care which is bestowed upon the patients. This committee also listens to all complaints, of whatever nature, which may be made by the inmates. These committees are appointed by the president, and are composed of men peculiarly fitted for the special duty to which they are assigned.

Board meetings are held, by law, every three months. Committee meetings are held frequently, but not at stated intervals.

Once a year the board meets and selects officers for the coming year, and also makes its annual report to the Legislature concerning the workings of the asylum.

The board of trustees have created by-laws governing their action, and also that of resident officers. This is in accordance with the organic law of the State passed in 1874. In addition to directing, in general, the affairs of the asylum, the board of trustees appoints a medical superintendent, and, upon his recommendation, assistant physicians and steward, and such other officers as may be deemed necessary.

These resident officers have their duties defined in the by-laws of the asylum.

The superintendent is the managing head of the establishment, and from him all orders for the government of the entire institution emanate. He has charge of the buildings, grounds, and farm, together with the furniture, fixtures, and stock. He has charge of the patients and all matters relative to their proper care; he directs the diet, rest, exercise, amusement and occupation, and prescribes the medical, hygienic, sanitary and moral treatment for each individual case. The superintendent must visit the patients, or know of their condition, daily, and oftener if necessary. He causes to be kept a case-book with full records of each patient's case. Also he directs the keeping of all other books that may be necessary or in accordance with the requirements of the law. He makes terms relative to the admission and maintenance of every private patient, and receives all county cases that are sent in accordance with the terms prescribed by law and by the rules of the institution. Under the board of managers he discharges such patients as have recovered or improved, and transfers the incurable cases to asylums for the chronic insane. He defines the duties of all employed in the asylum, both officers and subordinates, and assigns to each the work to be performed. He examines all complaints made against employees for the violation of rules and the non-performance of duty, and investigates every charge made by the patients against the attendants. He directs and holds accountable the assistant physicians, supervisors and attendants in the bestowal of proper care upon the patients. He directs and holds accountable those in charge of the farm, the garden, the green houses, and the engineer, carpenter, laundry, and kitchen departments. He directs and holds accountable the steward in the purchase, reception and disbursement of all supplies for the asylum. Through the steward he appoints and dismisses all employees other than resident officers. He conducts the correspondence, receives funds for the maintenance of patients, and passes the same over to the treasurer of the asylum. He supplies to the board of trustees and its committees all required information relative to the workings of the institution at regular or special meetings; and, at the end of each year, he presents a general report of the institution and its affairs. The superintendent receives regular daily reports from the assistant physicians,

and from the supervisors concerning every change of symptom that occurs among the patients. He receives regular reports at frequent intervals from the heads of all subordinate departments throughout the establishment.

The assistant physicians act as aids to the medical superintendent and perform such duties as may be assigned to them. They attend to the watchman's time-indicator and to the reports made by the night watches concerning patients and make record of all unusual occurrences during the night. They enter in the case-books the names and histories of patients admitted, and write in full the histories of those discharged. They keep a record of those patients who are granted furloughs; they keep a daily census; they notify the steward of the admission, or discharge, or parole of patients; they keep, in a book provided for that purpose, the atmospheric temperature each day of the year, making the record at 3 A. M., at 8 A. M., at 2 P. M., and at 6 P. M. They note the number of hours of sleep each night by each patient in the asylum. They attend to and keep record of those patients who are, from necessity, fed with a tube. They visit each morning every patient in their respective departments, make full histories of all new patients, note all changes in the symptoms of the others, note the conduct of the attendants, the condition of the wards and all appurtenances to the same, and report to the superintendent each day at noon. They send the prescriptions, as made or approved by the superintendent, to the apothecary, and see to it that these are properly filled and administered. They attend to the extra diet ordered for those who are sick. In taking the histories of patients, the physicians note the name, age, sex, nativity, and condition of the patient; they investigate hereditary tendencies and inborn or acquired predispositions; they note the number of attacks and secure a history of the nature and course of each attack; they obtain a list of the previous diseases from which the patient has suffered; they take the temperature and pulse; they note the nature of all excretions. If the patient is a female, they note the number of children, if any, the age of the youngest, the character of menstruation, and the nature of all sexual disorders, if such exist. In addition to the foregoing, all objective and subjective symptoms are gathered, and upon the totality presented the prescription of medicine is made, and the necessary line of treatment is ordered. Under the superintendent the assistant physicians direct the application of such restraint as may be required. The assistant physicians keep books of statistics relative to the patients, which statistics are published each year in the annual reports. They assist the superintendent by preparing answers to correspondence relative to patients. They assist in receiving the friends of patients and in giving such information as may be required. They examine applicants for positions under the civil service rules and keep the books necessary for that purpose. They prepare such statistics as may be required of the superintendent by the State Board of Charities, and State Commissioner in Lunacy. The assistant physicians perform such other duties as the superintendent may assign them. In the

absence of the superintendent, the first assistant physician performs his duties. He is also chairman of the local Board of Examiners under the civil service law.

The steward, under the direction of the superintendent, makes the purchases, keeps the books, hires and dismisses employees, takes charge of all supplies, sees that they are of proper kind and quality, and that they accord with the terms of the contract under which they are purchased. He opens an account with every patient admitted to the asylum and makes the necessary charges for board, for clothing and for other supplies, and for damages done to asylum property. He furnishes to the friends of patients, and to proper county officers, statements of accounts at regular intervals. He receives from the superintendent all the money paid at the asylum for board, keeps a correct account of the same, and passes all sums received promptly into the hands of the treasurer. He makes monthly statements to the superintendent, showing receipts and expenditures in full. He makes purchases by contract, after open competition, when practicable. Temporary supplies needed for immediate use are purchased in accordance with the wholesale prices presented in the leading weekly publications. He delivers supplies to the wards weekly, each ward being supplied in proportion to the number of its inmates, adhering strictly to a per capita allowance laid down by the superintendent. Kitchen supplies are furnished daily upon the same plan. Clothing for the county patients is supplied on requisitions by the supervisor after the same has been approved by the superintendent. Store room accounts are kept which show the disposition of all articles. Supplies for the laundry, and for the engineer's department are furnished when ordered by the superintendent.

The assistant steward has oversight of the kitchen, the laundry, and all portions of the establishment outside the wards. He notes the work of the employees, and makes reports of their fidelity and industry, and of any negligence or violation of orders. He guards against waste and loss of every character.

The supervisors have immediate charge of the wards, directing the attendants and instructing them in the proper performance of their duties. They regularly visit each hall, room and patient from three to six times every day. They make written reports twice a day to the superintendent as to the condition of every excitable patient in the house, and as to every unusual occurrence of whatever nature. They attend to the reception of new patients upon the wards. They see that the halls are supplied with all needed articles; that the food when received from the kitchen is properly served; that the apartments of the patients are clean, warmed and properly ventilated; that the clothes and bedding are always clean, well aired and in good order. They keep records of the restraint used; of the number of patients who exercise and who are employed; and state the kind of employment. They report, regularly, the efficiency and general conduct of the attendants; also all acts of insubordina-

tion or disregard of rules. They make lists of all articles received with each patient, and care for or account for the same. They keep record of all new articles manufactured, and of all articles repaired. They make inventories of the state property, and of each patient's property, at regular intervals. They give special attention to the sick, and see that the physician's orders are fully obeyed. They give daily instructions to attendants as to the proper performance of their duties. They see that the patients are weighed each month, and also when admitted and discharged. They watch over every portion of the building committed to their charge; guide, direct and control the attendants, and seek to promote in every possible way the comfort and the happiness of the patients. They attend all the meetings, dances and gatherings of the patients, to enforce good order and to promote the welfare of those in their charge.

The duties of the supervisors are very exacting, and such positions require a high degree of intelligence and acquirement. The supervisors are, therefore, selected from the most cultivated, the most patient, the most persevering, the best trained, and long-tried of the attendants. The supervisor's influence is felt upon the attendants in the performance of their duties, and upon the patients as the recipients of their ministrations. The supervisors are the immediate allies both of the physicians and the patients. Without faithful and enthusiastic supervisors to fulfill the wishes and orders of the medical officers it would be difficult to insure the best possible care for asylum patients.

Next in importance to the supervisors come the attendants. Each ward is in charge of a head attendant and each head attendant has from one to four assistant nurses. The duties of the head attendants are: To rise at half-past five in the morning; to unlock the patients' doors; to see that the patients are washed, dressed, and have their hair combed ready for breakfast at the proper time. The head attendants administer medicine to the patients in their charge as directed by the medical officers; they see that the food is properly served and that those patients who will not otherwise eat are fed with spoons; they see that the bedding is properly aired and that the rooms and ward are ventilated while the patients are at breakfast; they have the beds made, the ward swept, mopped and washed once or twice each day; they see that each patient has a bath and clean clothing once a week; they give sick patients a sponge bath and a change of clothing every day, and oftener if necessary; they go out walking with the patients; they accompany the doctors through the ward and give answers to all questions regarding the condition of patients, reporting all changes and all refusals to eat, to take medicine, or to perform what is required by the superintendent or his assistants; they make use of disinfectants both in the wards and the water-closets; they keep lists of clothing sent to the laundry, checking off the articles when returned, reporting to the supervisor when an article is lost; they keep records of fits, of menstruation, of restraint, and of the general condition of each patient in their ward; they make lists of all worn-out and destroyed clothing and of all

damages done by the patients ; they bathe each new patient as soon as received and report to the supervisor at that time of bruises or injuries which may be apparent when the case is admitted ; they report to the supervisor all injuries received by patients or nurses ; they see that the other attendants on the ward perform their duties properly and that they treat the patients at all times kindly. Each regular attendant is charged with the care of some six or eight patients. Special attendants are detailed to care for those requiring particular attention.

The duties of attendants are severe ; the hours of service are long ; and the work is often burdensome. From the earliest dawn until late in the evening each attendant is under a stress and strain of care and anxiety. Each one has a certain portion of the ward to keep clean and in prime order. Each has patients that must be attended to constantly during the day. These patients must be watched at meal times. They must be daily exercised in the open air each pleasant day. They must be quieted, comforted, amused or occupied at all hours, and at night they must be carefully and tenderly placed in bed for suitable rest. In many instances the kindness and care bestowed are unappreciated, and the only rewards received are blows and kicks and curses and opprobrious epithets. Rudeness cannot be returned in kind except by a violation of the laws of the institution. To claim that the attendants are always kind and pleasant, even under the persistent provocation of days' and weeks' duration, would be to claim for such persons the possession of supernatural christian graces. Yet, from every person employed upon the wards is exacted at the outset a solemn promise to treat every patient with whom they come in contact with profound kindness and consideration, and, after more than seven years' experience, I am impelled to state that no class of individuals in the community, as a rule, perform their duties with more rigid honesty, fidelity and fortitude than these same attendants, who are often the victims of malignant misrepresentation.

The attendants at this asylum are selected from a large number of applicants, and in each case, so far as practicable, their qualifications are determined before they enter upon their duties. They must come well recommended by reliable citizens ; they must be able to read, write and perform ordinary problems in arithmetic, and they must be in good health. In their general appearance they must bear the stamp of good nature, and they must be sober, honest and industrious. As a rule our best nurses are those who come fresh from the rural districts and free from the bad habits which persons sometimes acquire by working in institutions where they have not been subjected to rigid and thorough discipline. We prefer to instruct our nurses from the beginning and then we feel certain that they will most likely fulfill our wishes by a proper performance of their labors. After considerable experience we have found that the duty of caring for the insane is best intrusted to those who are young, active, vigorous and teachable. Such persons can be most

easily encouraged to infuse into the work of nursing the insane a love, or at least a sympathetic regard, for unfortunate humanity. The nimble feet and the willing hands of those who are young, or in early maturity, are best fitted for ministering to the ceaseless wants of the insane. The shiftless shufflings of the aged and enfeebled, and the lazy movements of the unsuccessful crones of life, are as unwelcome in the wards of an insane asylum as they are in the busy haunts of active enterprise, or in the midst of stirring progress. We mean no disrespect for age, but the just claims of the suffering insane can only be met by those who are young, well, and strong. Nowhere is supple strength, continual cheerfulness, quick perception of all wants and alacrity in supplying them, more imperatively demanded than in the apartments of those who are harassed by mental disorders. Nowhere is the sound judgment of a clear and healthful brain more urgently required.

The skillful nursing of the insane is an art not easily acquired, nor is its value as a means for doing good and of obtaining a livelihood thoroughly understood and appreciated. Instead of resorting to the trials and perplexities of teaching, or to the smaller work of the shop or the store, the powers of many might, I believe, be better employed in ministering to the wants of those stricken with insanity. We hope that this class of workers known as asylum attendants may continue to improve; and we hope that the time will come, and that right quickly, when the compensation for this important form of labor will be very much increased.

Our present method is to give special instructions to each attendant, and to make promotions as proficiency is acquired. The duties of attendants are defined by the medical superintendent; the performance of these duties is enforced by him, by the assistant physicians, by the supervisors, and by the head attendants. In addition to special and oral instruction we contemplate a course of lectures which shall not only define and portray the best methods of taking care of the insane but shall likewise broaden the views and stimulate the aspirations of each and every worker in the asylum.

Outside of the wards each department has its appropriate and qualified head. Thus we have an engineer in charge of the boiler-house, the steam-heating apparatus, and the water and gas pipes; we have a carpenter to make necessary repairs, alterations, and improvements in his line; we have a head cook who takes charge of the raw material and prepares, or directs the preparation, of food for the entire establishment; we have a head laundress to manage the laundry; a farmer to conduct affairs on the farm; a gardener for the garden; and a florist to manage the green-houses and the grounds. These heads of subordinate departments direct and control those working under them, and are held directly responsible to the medical superintendent. They are supplied with necessary help and stand sponsor for the good behavior and steady industry of their subordinates. All these heads of minor departments report regularly to the superintendent and receive from him orders relative to further improvements.

Each and every department in an asylum is important as a factor of the general whole, and must be kept in prime working order, since friction in one part will cause jarring and derangement throughout the entire machinery. But, as the holding of a position depends entirely upon the satisfactory performance of the duties of that position, and as each head feels both a pride and a responsibility, there is usually but little friction or jar. Prompt reprimand or dismissal for violation of an order or neglect of duty is the rule of the institution. Lack of sobriety, and willful disobedience, or neglect, or carelessness are among the chief causes of dismissal. When men and women work honestly, soberly and intelligently there rarely occurs the slightest necessity for either reproof or dismissal.

We have presented an outline of the State system of asylum management; we have presented a brief outline of asylum organization. Before proceeding to describe the methods which have been established at this institution for the treatment and cure of the insane, we desire to present the prospectus issued by the most famous asylum in France. Thus the readers of this report may be enabled to contrast the forms employed in another nation and another asylum with the means and measures employed in this asylum and in this State. In some respects a remarkable similarity will be developed; in other respects a marked difference may be discerned.

“THE NATIONAL HOUSE OF CHARENTON, FOR THE TREATMENT OF
MENTAL DISEASES.”

(Translated by Mrs. SELDEN H. TALCOTT).

“The National House of Charenton is designed by the government to serve as the model for all France. Its situation upon an elevated plateau offers a most beautiful and extended view of the large valley of the Marne and the Seine. Numerous divisions, each furnished with galleries, courts, and airing courts, permit the separate treatment of the different forms of insanity, and of always classifying the patients in a methodical manner, and in conformity to their mental condition. Fountains placed in all the courts and different stories of the apartments give an uninterrupted circulation of water; immense hot-water stoves heat all the establishment and supply, during the winter, everywhere a constant heat; numerous rooms, preceded by small rooms for the attendants, give special accommodations for those to whom the physicians allow them.

The apartments of the men and those of the women are joined by large gardens and two groves, in which the patients can walk every day. Exercise of the body being considered as the best means of recovery, the grounds are at the disposal of the men, where they can go, and under the direction of a second attendant and a gardener, engage in the work of horticulture and gardening. For the ladies, several rooms for needlework, embroidery, etc. are managed and superintended by the Augustine Sisters. A mistress of music

and a lady superintendent of the parlors and promenades are connected with the establishment; a library, a reading room, where are found magazines and illustrated papers, and several billiard tables, are free to the inmates; excursions in the environs of the institution, sometimes on foot, sometimes in carriages, are arranged for those who are able to take part in them. On Sundays and Thursdays, in the parlors, are held reunions, where the patients converse, play games, have music and dancing, and where they find themselves like the people of the world. In a word, the officers endeavor to procure for the inmates every possible occupation and pleasure, and every suitable occasion for distraction and amusement.

THE ADMINISTRATION.

The National House of Charenton is under the immediate authority of the Minister of the Interior. It is managed by a director appointed by the minister. There is connected with the institution a consulting commission, the members of which, taken from the chambers, the council of state, the supreme court, the court of appeals of Paris, the accountant general's office, etc., are each appointed by the minister, and their services are gratuitous." (This commission corresponds to our Board of Trustees). "This commission appoints, each year, one of its members to fulfill, in conformity to ordinance of article 34 of the Law of June 30th, 1838, the duties of administrator, to persons incapable of attending to their own affairs, who are placed in the institution.

MEDICAL SERVICE.

The medical service is conducted by two physicians, one having special charge of the male department and the other of the female. A surgeon is also connected with the institution. The physicians and the surgeon are assisted by students who act as internes. A pharmacist is also attached to the institution.

A general visit to all the patients is made each morning, in each department, by the division physician, accompanied by his interne and attendants; a second visit is also made in the evening, at the hour of the patients' dinner, by the interne, and, if necessary, by the physician. Medical care is the same for all the patients, to whatever class they may belong.

The Augustine Sisters, of whom the superior fulfills the duties of chief supervisor, have charge of the internal service of the female departments, and the secondary direction of the economical service, the kitchen, the office, the linen rooms, the clothing rooms, and the work rooms.

RELIGIOUS SERVICES.

The institution has a chapel under the direction of a special chaplain; mass is said every day in the week. Sundays and fast-days religious services are celebrated with the usual pomp of the church;

all the inmates are at liberty to attend these services if their mental condition permits. The chaplain resides in the house; he has charge of the religious aid given to the patients.

PRICE AND CONDITIONS OF BOARD.

The price of board per annum is fixed as follows: First class, 1,800 francs; second class, 1,400 francs; third class, 1,000 francs. Patients who wish a private room should have a servant for their personal attendance, and the additional price of board will then be as follows: For men, 800 francs; for women, 850 francs. The addition represents the board and wages of the servant. There are, besides, in the female department, several separate apartments, consisting of a bed-room, a parlor, and a room for one or two maids, all comfortably furnished. For these apartments the board is raised to 3,000 francs with one maid and 3,800 francs for two maids.

The food varies according to the class of the boarder. It is usually sufficient and healthful in the third class, more varied in the second class, abundant and choice in the first. The boarders of the first class dine, without contrary orders from the physician, at the public table, in a dining-room next their wards; the boarders of the second and third classes dine in their respective wards.

Families can have furnished to their patients, besides the usual regime, coffee, chocolate, Bordeaux wine, by paying a stated sum to the institution. The price of board includes the marking, repairing and washing of the clothing; heating, light, furnishing of paper, ink, pens, pencils, etc., to the patients, the institution supplying the small losses and wants thus occasioned. However, the institution only furnishes the lighting and heating for the patients in the wards; the patients who have private rooms must pay, in addition to their board, for the fires and lights which they use.

All letters addressed to the institution, or the inmates, must be prepaid.

The inmates pay in advance by the month or quarter, commencing the day the patient is admitted; and it must always be paid by the twelfth day after admission. That for the month of leaving, or of death of the patient, remains at the disposal of the institution. The head of the family, parents or guardians, known to be solvent, should, upon bringing the patient, agree with the director; and, in case the parents of the patient are not known to him, he may require the pledge of a third party, known by him to be solvent. Families not living in Paris should, if possible, appoint a correspondent who resides there. Those who do not, at the time of admission, pay the board of the patient, must send the money, by registered letter, a post-office order, upon the station of St. Maurice, or a post-office order on the general receiver of the the office of Trisor. The cash should always be addressed directly to M——, the receiver of the Maison Nationale.

The linen and clothing for the patients is provided by their friends, and registered with the clothing of the house. All that remains of the clothing upon the discharge, or death, of the patient, is returned to his family in good faith, and in the condition in which it is found.

Families who do not reside in Paris, who do not wish, or who are not able, to attend to the clothing of their patients, can leave it in the care of the house by paying an annual charge of 300 francs for boarders of the first class, 250 francs for those of the second class, and 200 francs for those of the third class; but on the condition that a stock of clothing is previously furnished, or an equivalent sum is placed in the treasury of the institution for that purpose.

In all cases when the linen or necessary clothing is not sent to them at the urgent request of the officers, it is furnished by the house at the expense of their family.

The clothing of the subscriber does not belong to the house, if the patient leaves before the end of six months. The clothing belongs always to the house in case of the death of the subscriber. The clothing, effects, or articles of every nature, belonging to the boarder (subscriber or not) which are not taken away in six months after the discharge or death of the patient, are taken by the institution.

The linen room is open every day, except holidays, from ten to four, and on Sunday from noon till four.

VISITS AND ADMISSION OF THE PUBLIC.

The patients can receive twice a week (Sundays and Thursdays at a quarter after twelve) visits from their parents, guardians or correspondents; provided the physicians do not forbid it as harmful or dangerous. Strangers who wish to see a patient, must, besides, bring with them authority from his parents or guardians.

All kinds of food or drink cannot be given directly to the patients; that which is designed for them should be taken to the superintendent or to the superior of the sisters.

The physicians, at the visiting hour, remain in the reception rooms to give permits to visit the patients, and to give to those interested information relating to their condition. Parents or friends who come intending to bring a patient are received every day at all hours. With these exceptions, the public are allowed to speak to the director, the physicians, the attendants, the sisters and patients only on Sundays and Thursdays at a quarter after twelve.

The grounds are open to the public every day except feast-days, from a quarter after ten, and on Sunday from a quarter after twelve until four o'clock.

FORMALITIES TO BE CARRIED OUT FOR THE ADMISSION OF PATIENTS.

The placing of a patient in the institution is voluntary or official. In the voluntary admission of a patient it is necessary :

1. To sign a request for admission, containing the name, and christian name, the profession, age, and residence, and the degree of relationship, if any, existing between the parents.

2. Produce a certificate of a legalized physician, written within fifteen days of date, relating the mental condition of the person to be placed there, and the necessity of special treatment in an institution.

The physician who gives the certificate should be a stranger to the institution (and should be neither parent nor relative to the second degree inclusive), to the director, or any person who would be affected by placing the patient there.

3. The certificate of birth, or marriage, of the patient, and all documents necessary to establish his legal situation.

The official investments are ordered by the prefect of police."

Thus ends a very interesting prospectus. The scope of the institution, that of caring for those of humble means as well as those backed by the resources of opulence, is admirable. The entire plan of managing the institution is beneficent. But the system of administration can hardly be commended to either the English or the American people. A two-headed administration (business and medical) is as likely to breed dissension and turmoil as the French plan of national government—that of alternating republicanism with monarchism. Factional disturbances are common when conflicting cliques struggle for the mastery. In asylums under two authorities, the business manager wishes to make an economical showing; the physician wishes to secure all possible comforts for his patients. Hence a natural tendency to clashing of interests. In France, where charity is universally deified, this danger may possibly be averted. But in America the religion of charity seems not so well developed. The gospel of greed still rules in many hearts.

THE CLASS OF PATIENTS ADMITTED TO THIS ASYLUM.

In 1882 we wrote: "The highest object in the care and treatment of the insane should be their safe and permanent restoration to mental health. That method is most successful which restores the largest number in the briefest space of time.

To ascertain which method is really the best a careful comparison should be instituted.

To do this, however, the character of the cases admitted to different asylums must be carefully considered.

In one asylum only recent or acute cases are admitted. Another institution is, by force of circumstances, compelled to receive all classes of cases.

Of course it is difficult to make comparisons between asylums conducted upon such widely different plans.

It has been the custom at this asylum to receive patients of all classes and grades, from those who have been insane but a single week to those who have suffered under the visitation of insanity for more than thirty years. Hopeless cases of epileptic mania, of general paresis, of chronic dementia, are often brought to us for treatment. Even those who are *in articulo mortis* are brought hither, and on arrival must be admitted, and only to die, for it would be simply adding to the inhumanity they have already experienced were we to return them to their homes, whence they should not have been removed.

Of course the admission of those who are in a chronic or a dying state militates largely against a favorable percentage of recoveries, and tends likewise to unusually swell the death rate. In a total of 175, we find that *forty-six* patients, who had been insane from two to forty years each, were admitted during the past year; seven cases were moribund when received. Yet, in spite of these facts, of the whole number discharged, over forty-five per cent were recovered, while the death rate was but a trifle over five per cent on the whole number treated."

The plan of receiving nearly every applicant is continued. The simple care of a hopeless case, while life lasts, is too often our enforced duty.

We come now to an important section of our report, namely :

The treatment of patients.

The methods employed at this asylum for the restoration of the insane may be stated as follows :

1. Kindness and gentle discipline.
2. Rest as a means for physical and mental recuperation.
3. Enforced protection.
4. Exercise, amusement and occupation, as stimulants to the renewal of health.
5. Diet and artificial feeding.
6. Mental and moral hygiene.
7. Sanitary surroundings.
8. Medicine.
9. Furloughs.

1. Before Pinel engaged in his benevolent and world-famous work of liberating the chained and shackled insane at Salpetriere, Samuel Hahnemann illustrated and enforced the law of kindness by his treatment of Klockenbring, the insane secretary of the Chancery of Hanover. Indeed, as far back as 1789, he established an asylum for patients afflicted with insanity, in Georgenthal, near Gotha. Pinel's noble work began about 1791. To show how thoroughly the founder of homœopathy appreciated the necessity for kindness towards the insane, we quote the following benign statements from his pen: "I never allow any insane person to be punished by blows or other corporeal infliction, since there can be no punishment where there is no sense of responsibility, and since such patients only deserve our pity, and cannot be improved, but must be

rendered worse by such rough treatment. The physician of such unfortunate creatures ought to behave so as to inspire them with respect, and at the same time with confidence. He should never feel offended at what they do, for an irrational person can give no offense. The exhibition of their unreasonable anger should only excite his sympathy and stimulate his philanthropy to relieve their sad condition."

No modern reformer has given expression to wiser or sublimer sentiments than those expressed by Hahnemann nearly one hundred years ago. At the Middletown asylum we seek to exemplify, both in the medical treatment and in kindness to our patients, the teachings of the illustrious "sage of Coethen." To be sure, the insane must sometimes be governed and controlled, but, while the administration of discipline is at times necessarily firm and unyielding, it should still, in every word and act, be tinctured with the essence of the golden rule. The more irresponsible the patient, the gentler and more sympathetic should be the treatment. As patients resume their normal condition they may be subjected to the wholesome influence of laws necessary for their proper government.

As loss of self-control is a prominent indication of insanity, so the resumption of self-restraint is not only a pleasant omen but a necessity to those who are progressing toward recovery. Physicians, supervisors, attendants, and all who come in contact with the patients here are enjoined and urged, repeatedly, to control themselves and then to bestow upon the suffering, continually, the blessed balm of kindness. The violation of the law of kindness is punished more promptly and more severely than the violation of any other rule.

2. When a new patient is admitted to our wards the first question that arises is: "What shall be his treatment?" Several years ago, during our early experiences in these matters, we allowed most of our patients to be up and dressed during the day, and perhaps, violently exercising upon the wards, and, as we now believe, often to their detriment. Recently we have inclined to a change of tactics, and we have come to regard rest in bed as a very important primary measure for the cure of our patients. A popular notion prevails that the insane, especially those who are unduly active on account of their insanity, should be made to labor, or at least to engage steadily in some light occupation. This notion should be qualified, if not altogether expelled from the minds of thoughtful people. The time may come, in the course of an insanity, when occupation and labor are proper; but at the outset it quite often happens that the insane man, like a runaway horse, needs, more than any thing else, a check and a curb, and the interposition of means stronger than his own disturbed and erratic will, for the purpose of conserving his fast-waning physical powers. When a person feels the first insidious approaches of insanity, he often becomes sleepless and spends his time, both night and day, in restless wanderings, in undue attention to business affairs, or in fierce indulgence in the study

and contemplation of abstruse subjects. Such is the dire influence of this unwholesome disease that the victim, even after a sleepless night and while needing rest more sorely than ever before, will plunge inordinately and recklessly into the whirlpool of daily affairs. Under the spur of disease he thinks faster, talks faster, works faster than is his customary wont. Occasionally, after a brief period of such undue exercise, the patient becomes depressed, apathetic, melancholic, inert. But in many cases this excessive exercise produces an erethism of the nervous system which, even in the last extremity of profound exhaustion, impels to further exertion of body and of mind. Thus we have, in a short time, the full development of an acute mania, or of an excited melancholia. The patient finds no rest either night or day. His ideas are evolved from a super-heated brain, with rising and increasing vehemence, as flames shoot up from burning oil. There is a constant and electric repetition of the same ideas. They appear with the rhythm and rapidity that characterize heat waves from a white-hot furnace. The destruction of life forces under such circumstances is appalling. The weight and tone, the vigor and life of the patient rapidly melt away before the onset of this fierce disease. Exercise under such circumstances is as oil upon flames ; it merely increases the destruction, and enhances the danger. Occupation is simply a bellows which fans the fire. To save the patient's life and to restore him to health it is absolutely necessary, not only to avoid exercise and occupation, but to enforce profound rest and thus subdue the environing danger. We have known patients to die from sheer exhaustion because those having them in charge did not sufficiently perceive their physical weakness, nor enforce measures for protecting such patients against themselves. Those who are now admitted to this asylum, while in danger of speedy death from the exhaustion of over-exertion, are obliged to accept enforced rest. They are at once compelled to yield an implicit and soldierly obedience to Macbeth's command to Seyton : "Get thee to bed."

Everybody recognizes the necessity for enforced rest in cases of pneumonia or typhoid fever. Insanity, when stripped of the husks of superstition which environ it, is found to be just as much a physical disease as small-pox or scarlet fever. The existence of physical disease is sometimes not so apparent in insanity as in erysipelas, but it exists, nevertheless. For some time past we have practiced enforced rest in cases of mania, melancholia, and paresis, where the conditions are excessive restlessness, loss of appetite, and rapid wasting of the vital forces. Our experiences have demonstrated the value of rest, to such an extent that we tend more and more toward this, the true hospital system of treating the insane. Our critical and exhausted cases are now put to bed and kept there until the mind is calm and the body sufficiently strengthened to admit of a gradual renewal of the ordinary exercises of life. When first placed in bed the patient may, for a short time, be unusually restless ; but after a few days a marvellous quiet steals over the senses, and the patient submits,

readily, to the exigencies and the demands of the occasion. If permitted to be at large, the excitability would increase to an almost unparalleled extent, and would continue for an indefinite period. But enforced rest brings the most prompt and satisfactory relief.

3. Enforced rest, or enforced protection, is most satisfactorily secured by the use of a waist similar to a dress waist. To this waist are attached long sleeves and padded mits in front, and bandage-like attachments on the side. These bandages are fastened to the bed in such a manner that the patient may lie on his back or on either side, but he cannot rise and walk about. The body and limbs are held in place by what we call a "protection sheet." This sheet covers the entire bed and is fastened at the sides and at the end. The upper part is cut in a semi-circular shape so that the head and neck of the patient are free. The arms of the patient pass through suitable openings in the sheet and are left free and unrestrained. The beds which we use for these patients are made of ordinary pipe framework, between the ends of which is stretched a woven-wire mattress; over this is a felt or hair mattress. Aside from the protection sheet, all the bed clothing and appurtenances are of the usual variety.

When thus subjected to enforced rest, the patient can harm neither himself nor those about him. The circulation of the blood is rendered as free and easy as possible. Respiration is unimpeded, which is not always the case when a camisole or muff is used. The outlook is cheerful, for the patient's surroundings may be as pleasant as those in a bright parlor. In this situation the patient is enabled to take an abundant supply of restorative food, and the process of repair may thus go on with the least possible interference.

The indications of improvement are as follows: First, a subsidence of mental and physical excitement; secondly, an improvement in the appearance of the skin, which loses its dryness and roughness and becomes soft and natural; thirdly, a mellow lustre and clearness of the eye, in place of the former blood-shot and staring appearance; fourthly, a steady and substantial gain in bodily weight; fifthly, an increase from night to night or from week to week, in the number of hours of sleep attained.

While these patients are kept in bed they require an extra amount of careful nursing. They are daily sponged with alcohol and water and their bodies thoroughly rubbed; and in some instances, the muscles, particularly of the extremities, are thoroughly manipulated every evening by the nurses.

The use of former and common restraints have been almost entirely dispensed with at this asylum. The muff is only occasionally, and the camisole but rarely employed; instead, we use what is best termed "enforced protection." The method has been already described. While this enforced protection retains the patient in bed, it has none of the repulsiveness of the heavy leathern muff, or of the strait-jacket. The treatment is simply that which is accorded by the mother to her restless child when the clothes are tucked

about it so closely that it cannot kick them off. It is the same protection that is accorded to the fever patient, with the exception that the canvas sheet keeps the clothing in place and the patient properly covered in lieu of the hands of watchful neighbors and friends. The protection sheet does the work of two attendants, so far as retaining the patient in bed is concerned. Without it some cases would require two attendants during the daytime and two during the night. Very few counties or individuals can afford the luxury of paying for four attendants to a single patient. Nor would the four attendants be any improvement over the methods we have adopted. After the patient has been bathed, and fed, and prepared for the day or the night, the protection sheet does all that the hands of attendants could do in protecting the patient from harming himself or others.

Enforced rest is continued until the patient sleeps well at night; until he has gained several pounds in flesh; until the skin becomes soft and natural; and until mental irritability has, to a considerable extent, passed away. Then the protection sheet is removed, and self-control is encouraged. Soon the patient begins to sit up a short time each morning. As he gains in strength, the time for sitting up is gradually lengthened. After having made a fair start upon the road to recovery, he is at first amused and occupied by conversation with the physicians and attendants, by looking over pictorial papers, and by short readings in light literature. Lady patients, while being subjected to this treatment, often engage in crocheting or other light handiwork.

4. From amusement and occupation, which are not in any sense a toil, the patients pass gradually to the resumption of the functions of exercise. At first they are allowed to take short walks about the ward or in the day rooms; they are allowed to play on the piano; to play cards or dominoes with their fellow-patients, or to exercise at billiards. A little later they are permitted to take strolls upon the grounds. The exercise of walking is slowly increased until the patients are sufficiently hardened to engage in some useful occupation, such as working on the wards; in the laundry, folding clothes; in the greenhouse, cultivating flowers; or in the garden, working among the vegetables. By such a course of treatment we have had the pleasure of seeing many apparently hopeless cases, after long periods of rest and nourishment, rise from their sick beds and progress to genuine and substantial recoveries. The process which we have outlined is sometimes completed in three months, and sometimes a year or more elapses before the desired result is attained.

Concerning the labor question, we presented in the eleventh annual report the following paragraph: "After rest, after sickness and enfeeblement, come naturally the recuperative and recreative influences of exercise through moderate toil. We find that, even to the feeble, employment may have its beneficent uses. Yet in the

administration of labor, as a species of medicament, we must individualize each particular case, and prescribe only such homœopathic doses as shall insure the most beneficial results. When taken in excess, toil inflicts the most disastrous effects and destructive penalties. Overwork, as well as overworry, sends many a shattered wreck of humanity to an insane asylum. When applied, then, as a means for restoration, labor should be given in very moderate doses, and its effects should be closely watched ; and the drug of toil should be withheld upon the slightest symptoms of unfavorable aggravation.

If a patient is strong physically he may, ordinarily, be placed at regular employment ; yet there are exceptions to even this apparently general rule. Though possessed of great vital powers, the patient may be in that peculiar condition, where, if placed at work, his brain, instead of being soothed becomes super-heated, so to speak, and thus the very act of exercise aggravates the mental derangement, until it reaches mighty and uncontrollable proportions. Absolute quiet, and freedom from every form of exciting exercise, are sometimes the most important means with which to tone down, to a normal health level, a hyperæmic and over stimulated brain. It is not safe, therefore, to say that because an insane man is strong he should, as a natural consequence, be made to work ; since labor may be the most injurious affliction to which he can be subjected. Rare discretion, good judgment, and the wisdom of experience must be exercised in behalf of the strong as well as the weak who are insane.

Among recent or acute cases we find but a very small proportion who can with any safety engage in any kind of labor. Those who are excited are generally incoherent in action as well as speech, and as a rule their attention cannot be fixed upon work long enough at a time to produce the slightest benefit either to themselves or others. Moreover, such patients are utterly unreasonable, irresponsible, and dangerous to those around them ; and we do not consider it wise to place tools, which may be used as murderous weapons, in such hands. Those who are mentally depressed are often inclined to self-injury, and hence should not be trusted with sharp tools, which might be used as means for committing suicide.

After the primary outburst of insanity, whether the manifestations are of exaltation or depression, when the patients have either subsided to a moderate calm, or risen from the depths of despondency to the plane of apathy or indifference, then the question of labor becomes practical and momentous. At this juncture, suitable employment may conduce to a gradual but steady return to a normal coherence of thought and action. And the patient, by anchorage to steady work, may be saved from the stormy bourne of chronic mania, or from being drifted out upon the trackless ocean of dementia.

Now in dealing with the two principal classes under our charge—the ‘ pauper or indigent ’ on the one hand, and the ‘ private patient ’ on the other—we have still another complication to meet, in the harmonious adjustment of both to the question of labor. The poor are accustomed to toil, and naturally expect such an assignment.

Still, when placed as patients in an asylum, they frequently feel in their hearts the old warrings of the opposing classes in society ; and assume that now, if never before, they are the equals of their hitherto more fortunate and more prosperous neighbors. Hence they object to work unless their fellow patients of the paying class are compelled to toil, side by side, with them.

Private patients, who know that their friends are providing for them, also feel that they have a right to assert what was in the outer world an undisputed superiority ; and, knowing that they cannot be compelled to labor, they sometimes obstinately refuse to engage in such occupation as would most surely tend to promote their restoration to mental health.

In harmonizing these classes, that they may work together for a common good, the skill and tact of the superintendent of an asylum must be constantly tested and judiciously exercised. The poor, but proud, must be made to feel that they are employed, not for purposes of profit to the institution, but for their own self-help. The rich must be taught the lesson that labor is honorable for all ; that occupation for the capable is a prime necessity of nature ; and that it is furnished, not to weary or degrade, but to act as a needful diversion — a means which may contribute most effectively to speedy and permanent recovery.

That toil is not only a fulfillment of the primal curse, but likewise the normal condition of mankind, we have novel evidence in the fact that when the insane recover, they eagerly seek to renew acquaintance with that work for which they were previously fitted and trained. To encourage the convalescent insane to take up light and agreeable employment is, therefore, to lead them back into the paths, the pleasures and the prosperities of their normal, mental and physical life.”

Our views upon this vital question, as expressed in 1881, have been confirmed by our experience since that time.

5. After many experiments we have arrived at the conclusion that the most satisfactory diet for the insane, while in a weak, debilitated condition, is the use of abundant quantities of milk (either hot or cold), of beef-tea, and of toasted bread. Very weak patients are treated to hot milk ; those who are stronger, and have a preference, may drink theirs cold. This liquid diet is given at intervals of about three hours, beginning at six o'clock in the morning and ending at nine o'clock at night. If the patient is sleepless and very much excited, so that exhaustion is feared, the diet is continued every three hours throughout the twenty-four. The milk and beef-tea are given alternately, and toast is allowed once or twice a day. If patients refuse to accept proper nourishment, we resort to artificial feeding.

In 1878, we wrote, for the eighth annual report, the following : “ The difficulties often attendant upon feeding those who obstinately refuse to take food, happily suggested to Dr. N. Emmons

Paine" (my assistant at that time) "the idea of using the soft rubber catheter of Nelaton as a nasal tube for the injection of proper nourishment. As the ordinary catheter was rather short for the new purpose to which it was diverted, longer ones were ordered from Tieman & Co., of New York, and these have been in frequent and successful use for several months without accident. This form of feeding has proved itself the easiest, safest and speediest of any to which we have resorted, and will doubtless become popular both in asylums and in private practice. It can be rendered serviceable in cases of tetanus, fracture of the jaw, and paralysis of the throat, as well as cases of insanity. An ordinary Davidson's syringe, the small nozzle being inserted in the open end of the catheter, is all the force-pump that is required."

From 1878 to the present time we have fed, without serious difficulty, through this soft rubber nasal tube. Milk, beef-tea, gruel, Mellin's, Horlicks', and Nestle's food, fat soups, cod-liver and olive oils, and even melted butter or lard may be thus administered.

One of our patients was fed with a nasal tube three times a day for eighteen months; then she sat up in bed one morning and asked for solid food, which was given her. She ate so enormously from that time on that she gained forty-seven pounds of solid flesh in a single month; she recovered and went home strong and happy.

As the patients who are receiving a course of treatment with liquid diet increase in weight, and as their natural cravings for solid food return, we begin in a gradual manner to administer eggs, beef-steak, lamb-chops, chicken, fish, vegetables, fruit and bread; yet all the while the liquid diet is continued. Among green vegetables there are none more acceptable or more valuable than the common lettuce; it is a vegetable whose value as an article of diet is not half understood or appreciated. With this vegetable may be pleasantly administered considerable quantities of salad oil; the latter is a valuable addition to the diet of a patient whom you wish to fatten. Lettuce is not only a good article of diet, but it possesses mild yet valuable medicinal properties; it exerts a tranquillizing effect upon the nervous system. From May till November our tables have been daily graced with an abundance of fresh lettuce from the garden, in addition to from two to four varieties of other and perhaps more substantial vegetables from the same source.

To make an insane person fat, and at the same time to stimulate to renewed vigor the mental faculties (lest a possible dementia should supervene), is the most certain method for restoring the insane; consequently, every fat-producing food that can be taken without distress should be given. These fats may be administered to the best advantage in association with appropriate vegetables. Nearly every one of our patients consumes two ounces of butter per day.

Patients who have been addicted to the excessive use of intoxicating liquors should be fed upon milk, and soups containing beans, peas, lentils, or macaroni; after convalescence is fairly established, a farinaceous and nitrogeneous diet should be continued. Oatmeal or

cracked wheat and milk for breakfast, and baked beans or bean soup for dinner, should be the prevailing fare. New England witnessed an intense conflict, for more than one hundred years, between rum and baked beans, with a final and majestic triumph in favor of the latter.

Every insane person should have, at all times, free access to fresh water for drinking purposes. Those who are excitable will often drink considerable quantities, and, not only without detriment, but with positive benefit.

Among the aged we find that fresh buttermilk, given *ad libitum*, produces favorable effects.

Tea and coffee are often craved, from force of habit. If allowed, as they frequently must be, the quantity and strength should be carefully regulated; if practicable, they should be dispensed with altogether.

6. Every one who desires to treat with success the insane should study the principles of mental and moral hygiene. Quite a large number of young people find their way to asylums for the insane. These patients are often the victims of imperfect mental cultivation and frequently are far below the normal standard of moral tone; for such, a system of education is inaugurated. They are encouraged to study books, to read histories, to learn poetry, and sometimes they make rapid progress in education while being recovered. The moral tone of such is elevated by good injunctions from their physicians and attendants, by non-sectarian and exalted teachings, and by oft-repeated Gospel precepts of a general nature. Through these they gradually recognize their own shortcomings, and their natural and proper relationships to their fellow beings in the community. It is often necessary to teach these victims of moral impairment a just and natural love for their parents, for their brothers and sisters, and for their friends and neighbors. The principles of the golden rule and the eleventh commandment are constantly taught to the young insane at this asylum; they are also instructed as to the forms and usages of society, in the weekly dances and the occasional parties which occur on the wards at intervals throughout the year. At these dances and parties both sexes mingle freely, pleasantly and harmoniously, and the refining influences of such association are steadily noted.

Just here we may state that both suicidal and homicidal patients often need instruction and moral encouragement for purposes of self-control, and for the purpose of avoiding the commission of the most serious crimes of which man is capable. The homicidal patient often needs seclusion for purposes of reflection; but while in seclusion, his mind must be directed to a contemplation of his general relationships to those around him. Suicidal patients, on the contrary, must always be associated with others and never left alone. They are constantly watched by the attendants, and likewise kept with such patients as will likely exert a beneficial influence. We have long since come to the conclusion that the associated dormitory

is the best and only true place for those inclined to self-destruction. The insane seldom attempt suicide in the presence of others, but if they do, they can usually, if watched closely, be prevented from accomplishing their desires. One great danger relative to suicidal cases is that of relaxation of vigilance when patients seem to have nearly recovered. Until such suicidal patients have passed into a condition of unusual hilarity, until they have risen above their own normal health standard, it is unsafe and unwise to trust them. This powerful reaction from their depression is quite noticeable in a considerable number of cases.

7. Sanitary matters require special attention in every asylum. Fresh air in all portions of the institution is of prime importance. Each room in each pavilion of this asylum is in direct communication with the open air, by means of a brick ventilator, open on the sides, yet roofed for protection from rain. This ventilator connects with a subway running the entire length of the structure; and from this subway special open shafts extend to each room in the house. Steam coils are placed in the basement, and over these coils the fresh air from the central ventilator and subway passes directly to the rooms. By this means a constant current of warm but pure air is supplied to every room and hall in the buildings. Ventilating shafts, for the carrying off of foul air, extend from every room to large ventilators in the roof. The wards are so thoroughly ventilated and supplied with fresh air that it is unnecessary to send the patients out for a walk in very stormy weather. Each floor in the pavilions is supplied with four protected piazzas where patients take mild exercise, or where those who wish may indulge in the luxury of smoking while they read their morning papers. Every room and ward in the asylum is open to the admission of sun-light. Sun-light is as needful to the insane as to plants and grasses of the field.

The buildings are cleansed constantly, by the abundant use of pure water. Disinfectants are used but moderately, for we believe, with Florence Nightingale, that it is not so much the foul odor as the thing that produces it which should be expelled. When disinfectants are needed we use, principally, thymol, Platt's chlorides, copperas, and to a very limited extent, carbolic acid. Benzoic and other acids are occasionally employed. A solution of cologne water and salicylic acid is sometimes used upon a patient who may chance to have an unusually disagreeable odor. But water and scrubbing are the chief reliances. The floors are kept in order by the use of raw linseed oil mixed with turpentine, four parts of the former to one of the latter. This preparation is lightly applied and the floors are then "holystoned" with heavy blocks of wood covered with old blankets. To these are attached long handles for convenience in using. In this way the floors are kept polished and clean.

The heating of the pavilions is principally by indirect radiation. The main building is heated by both direct and indirect radiation.

Steam heating is best for preserving a proper temperature in public buildings.

Water for the institution is supplied from the Monhagen lake, an artificial reservoir of considerable extent, which likewise supplies the village of Middletown. Each building has in the attic a tank containing over ten thousand gallons of water. These tanks are constantly filled by the steam pump, located in the boiler house. Water for drinking and cooking purposes is supplied from excellent wells on the premises.

As the land slopes in every direction from the buildings drainage is an easy matter. Every water-closet, bath-tub, and lavatory is carefully trapped. The sewage empties into a large cess-pool, built of brick without cement,—in circular form, arched on top,—which is thoroughly ventilated. The liquid portion of the sewage is filtered through charcoal and sand; the solids are retained and used for enriching the farm. Sewer-gas passes away from the buildings through pipes running from the basement to ventilators on the roof. These pipes connect with all water-closets, wash-sinks, bath-tubs, and lavatories. The surplus heat in the attic produces a draft, and aids in the speedy removal of sewer-gas.

8. Medical treatment of the insane. The profession at large is entitled to the benefits of special and extensive experiences gained in the treatment of particular diseases in hospitals and asylums. Therefore we feel it our duty to report, with the results attained, those medical methods which have been here employed.

Every effort in the field of medicine should be directed by some pre-conceived and well-matured plan. The general principle which is involved in our methods is, that which is embodied in the law of similars. In treating the insane we seek invariably to comply with the precepts of that law. We use, as a rule, such drugs as have been hitherto proved upon healthy persons. The effects of these drugs have been recorded in our materia medicas. These provings are sometimes imperfect and incomplete. Very few healthy persons are willing to experiment with a drug to the extent of producing absolute and well-defined insanity. Hence the difficulty in finding appropriate remedies for the treatment of this disease. Still, in the provings which we have we find evidences of at least functional brain disturbances and disordered intellection. In the direction indicated by these provings we push on with practical experiments into the well developed pathological field. Our line of march, either in the discovery of a drug's action and powers, or in the diagnosis of any disease, is over that broad pathway which finally encompasses the "totality of symptoms." Certain drugs like *alcohol*, *belladonna*, *hyoscyamus*, *opium*, *hashish* and *stramonium* rise to prominence on account of the delusions, hallucinations, and illusions excited by the persistent use of these drugs by the healthy prover. When a very active and poisonous drug is used the artificial symptoms produced may correspond to a marked extent with those excited by the development of insanity. The more violent the action of the drug

upon the physical system, the more positive is the mental disturbance. In our treatment of a given case, the "totality of symptoms" is discovered, if possible, and then a drug which is capable of producing upon a healthy person symptoms most similar to those presented by the patient is administered.

This is the direct method of prescribing homœopathically. But not every battle is won by a direct attack upon the enemy's works; flank movements are sometimes necessary. In the treatment of insanity flank movements are made; first, when we seek to control the condition of the brain by modifying the action of the heart and the circulation; secondly, when we apply remedies to act specifically upon some organ of the body other than the brain, and where the exciting or irritating cause of insanity seems to exist; thirdly, when we give constitutional remedies for the purpose of checking unnatural waste, or for the purpose of promoting constitutional changes which look toward the renovation or rebuilding of the system. Again, the condition of the blood is sometimes considered, and while dependence must very largely be placed upon appropriate food for a necessary supply of the vital fluid, we may yet, by appropriate medication, induce favorable changes in its character and composition. In the treatment of a long-continued and disintegrating disease like insanity it is often needful to give a succession of remedies. Consequently, we frequently begin with such drugs as favorably affect the circulation, modifying it, and also restraining or removing tendencies to congestions and inflammations, and to their natural (if uninterrupted) results; then follow remedies most appropriate for the improvement of the condition of the blood itself. Again, remedies for the relief of diseases in special organs and for the general repair of tissues throughout the body, and for the healthful stimulation of the nervous system, are administered. These flank movements are made from necessity, but always in harmony with the main attack; always in accordance with those forces which are moving toward certain results on the general and unbroken line of the "totality of symptoms." The difficulty of presenting a single remedy that shall complete the work without adventitious aid, in a given case of insanity, is appreciated when we consider the fact that the manifestations and symptoms in this disease are both protean and multitudinous. Hence we seek to conquer the antagonistic insanity, not alone by direct advances but by flank movements as well, and we seek to strengthen our position constantly by every possible reinforcement.

Sometimes when the symptoms of a given case are few, indistinct or unattainable, we are obliged to select such remedies as seem applicable generally to that class of cases.

The primary and secondary actions of drugs must receive likewise due attention and consideration.

The actual physical and mental states in each case must be thoroughly explored and their special peculiarities discovered.

With these preliminary statements of our plan we shall proceed to name a few of the most prominent and successful remedies which

have been employed at this asylum and to describe the indications upon which their use is based. In some instances we shall contrast two or more remedies, that the reason for the selection of either may be more clear. *Aconitum napellus* naturally heads the list. It expends its force upon the cerebro-spinal system and the result is an undue arterial activity. The capillaries, under the influence of *aconite*, are speedily paralyzed; congestions follow; but as the effects of *aconite* are transient, severe inflammations are not usually induced. The patient for whom *aconite* is indicated is a recent case; is usually the victim of some intense shock; is full of fear and mental anxiety; is afraid of the dark; is afraid of ghosts; and is intensely afraid of what he believes to be approaching death.

As fear and apprehension are common symptoms among recent insanities, we here interject the names of several drugs which produce such symptoms, together with the special nature of the fears which each drug excites.

Arsenicum is afraid of the ghosts which the patient sees both day and night.

Aurum is afraid of the slightest noise.

Bryonia is afraid that his business will go wrong.

Calcarea carb. is afraid of some impending misfortune, or evil.

Hyoscyamus is afraid lest the object of affection should prove untrue. These fears of jealousy produce excitements which sometimes end in convulsions.

Ignatia is fearful because, prostrated by one grief, the patient broods over and anticipates more to follow.

Lilium Tigrinum is afraid of impending disease or calamity; fears she has heart disease; fears she is incurable; fears insanity.

Nux vomica is afraid of death, coupled with inclinations to suicide.

Sepia is afraid to be alone; has fears lest her health should be lost; has fears about domestic affairs; and is full of fears concerning imaginary evils.

Stramonium is afraid of every object in view, apparently from the fact that by illusion he sees in every harmless object horrible images or ferocious animals; is afraid of being left alone in the dark.

The action of a drug upon the brain and mind may not only excite fear, but every emotion of which the mind is capable may be either exalted or depressed by such artificial means. The effects of alcohol, of opium, and of hashish are evidences of this fact. Producing, as such remedies do, pathological conditions of the brain and abnormal states of the mind, they may be used effectively, by appropriate application, for the relief of such states and conditions as are often found to exist among the insane.

Supplementing *aconite* as a fever remedy we may name *baptisia*, *gelsemium* and *veratrum viride*. This group embraces some of the most important remedies for the treatment of insanity. *Veratrum viride* is more nearly associated to *aconite*, by similarity of symptoms, than either of the others. A somewhat exalted, apprehensive and restless condition exists under the influence of each drug; but, on

the one hand, the *aconite* restlessness is accompanied by the most intense mental excitement, while on the other the *veratrum viride* patient manifests only excessive physical unrest, but mentally he is comparatively indifferent. The *aconite* patient has intense and eager thirst; the *veratrum viride* patient has a dry, hot mouth, but the thirst is very moderate, probably from mental indifference. *Baptisia* acts not only upon the casserian ganglion of the sympathetic nervous system, but likewise upon the blood, the vascular system, and the mucous membranes. As a curative remedy for insanity its value is not half known. From the loud delirium of acute mania to the abject dullness of melancholia with stupor it works with a master hand.

The *baptisia* patient is somewhat restless, like *aconite* and *veratrum viride*, but mentally is more stupid than either. *Baptisia* may be used in cases where there is rapid and profound physical degeneration, simulating the typhoid state, and where the patient manifests that peculiar mental symptom that he "cannot get himself together." It is a singular fact that many insane patients have this delusion that their bodies are scattered and that they cannot keep themselves in a condition of physical continuity.

Gelsemium sempervirens is a useful drug in those cases which have become insane after protracted overwork and anxiety; after continued watching over the sick, with consequent loss of sleep; or after having indulged in intoxicating drinks to excess. These patients complain of dull, heavy pains in the head and neck; and they suffer from intense prostration of the muscular system. There is profound dullness on the mental faculties, and a tendency to melancholia. Occasionally such patients rise to a condition of anxiety and incoherence, and then relapse again into a stupid, comatose condition.

Another important quartet of remedies is composed of *belladonna*, *hyoscyamus*, *stramonium* and *veratrum album*.

Probably no remedy in the materia medica possesses a wider range of action, or greater powers for dispersing abnormal conditions of the brain than *belladonna*. Its symptoms are clear, well-defined, unmistakable. Its action is sharp, vigorous and profound. It is the powerful supplementary ally of *aconite* in removing the last vestiges of cerebral congestion; and beyond this, it subdues with surprising efficacy the processes of inflammation. The *belladonna* patient has a bright, flushed face, dilated pupils, and throbbing arteries. He has a mental condition which manifests itself by most positive ebullitions of rage and fury. He attempts to bite, to strike, to tear clothes, to strip himself naked. *Belladonna* develops two distinct mental states; one where the mental powers seem to be unduly excited and exaggerated, and all the symptoms of merry or enraged craziness are manifested; and the contrary state where the patient passes into a stupid and dazed condition. In the latter condition the pupils remain widely dilated; the eyes are staring and insensible to

light; there is heavy, stertorous breathing; the face is a purplish red; the patient refuses to speak; there is a marked rigidity, or steady tension of the muscles; and occasionally there is a low, muttering delirium.

The *hyoscyamus* patient is less excitable and frenzied than the *belladonna* patient. She is very talkative, however, and generally good-natured and jolly. She is inclined to destroy clothing, to be obscene, and to expose her person. *Hyoscyamus* is frequently applicable in the treatment of insanity among women.

It may be stated of *stramonium* that it possesses the power of deranging the sensorium and the cerebral nerves to a most remarkable extent. The delirium induced by this drug is more violent than that caused by *belladonna*. It likewise produces more intense mental excitement than *hyoscyamus*. The neurotic powers of *stramonium* are mostly expended in the sensorium, hence the mental disorders that we find after its administration. The mental symptoms of *stramonium* are numerous and striking. The imagination holds high carnival; the patient has hallucinations of sight and fancies that he sees all kinds of animals, particularly those of a ferocious nature. The patient has a strong desire for light and for company, and is exceedingly frightened when left alone in the dark. At one time there is intense sexual excitement; and, again, a profound tendency to religious matters, when the patient sermonizes, prays and converses with spirits. At times the *stramonium* patient passes into a condition resembling hydrophobia, when water, a mirror, or any thing bright tends to excite convulsions. Many of the prominent symptoms of mania and melancholia are manifested under the influence of *stramonium*. *Veratrum album*, while acting particularly on the gastro-intestinal canal, still affects with great power the cerebro-spinal system, and induces a tendency to convulsions and paralysis. The primary effects of *veratrum* result, mentally, in depression, in delusions of impending misfortune, and in a sullen indifference to the kind attentions of others. Physically, there is great prostration of the vital forces, a cadaverous coldness of the extremities and profuse clammy sweats.

From these depths the patient soon recoils, and swings into a frenzy of excitement, during which he indulges in terrible shrieks, in expressions of fright, and in violent cursings of those around him. The excitement and anguish of the *veratrum* patient are short-lived. He soon passes into a condition of the deepest melancholy, of abject despair of salvation, of imbecile taciturnity and complete prostration of both body and mind. The extremities are cold and blue; the features are pinched and pitiful; the eyes have a vacant and stony stare. The patients incline to wander from home; they are restless, but aimless in their wanderings. The indications for the special use of this drug are clear and well-defined. *Veratrum album* has been famous for the curing of insanity for more than three thousand years. Melampus cured the daughters of Proetus, king of

the Argives, of amorous and wandering mania with *veratrum album*, and that, too, some fifteen hundred years before the Christian era. He administered the drug homœopathically ; for he simply gave his patients to drink of goats' milk from goats fed upon the leaves of *veratrum*, and thus he secured a proper dilution of the drug.

Having named a double quartet of the most important and effective remedies for the treatment of insanity, together with the general indications for their use, we now present a supplementary list of remedies which are valuable, but not as frequently called for in every-day practice as those already described.

For mania we give (1.) *Atropine*, *cannabis indica*, *cantharis*, *lachesis*, *nux vomica*, *rhus tox.* (2.) *Agaricus muscarius*, *anacardium*, *arsenicum*, *bryonia*, *camphor*, *china*, *cuprum*, *digitalis*, *kali brom.*, *mercurius*, *phosphorus*, *piscidia*, *platina*, *pulsatilla*, *secale*, *spigelia*, *sulphur* and *thuja*.

For melancholia, in its various and general expressions, we employ *Arsenicum*, *aluminium*, *arnica*, *aurum*, *cactus*, *calcareo carb.*, *causticum*, *chamomilla*, *cicuta*, *cocculus indicum*, *crocus*, *digitalis*, *ignatia*, *lycopodium*, *lilium tigrinum*, *natrum muriaticum*, *nitric acid*, *pulsatilla*, *sepia*, *silicea*, *stannum*, *tabacum*, *antimonium tartaricum*.

The method of selecting drugs for the cure of the insane has been illustrated in our description of a double-quartet of medicines. The remedies just named are selected for use upon the same plan and in accordance with the symptoms which they produce, as recorded in the *Materia Medica*.

From the multifarious varieties of melancholia, we may select three prominent classes for special mention, namely :

(1.) Melancholia with religious tendencies. (2.) Melancholia with suicidal tendencies. (3.) Melancholia with stupor.

The most common remedies for the relief of those suffering with religious melancholia are *arsenicum*, *aurum*, *crocus*, *lycopodium*, *pulsatilla*, *stramonium*, *sulphur*, *silicea*, *veratrum alb.* and sometimes *zinc*.

Suicidal melancholia is the most distressing form of insanity to treat. The remedies which produce favorable effects in behalf of this deplorable condition are few in number and sometimes uncertain in their action. Yet we have been enabled to secure many good results by the faithful use of *arsenicum*. Sleeplessness, loss of appetite, loss of flesh ; a pale, cadaverous countenance ; a dry, red tongue ; thirst for small quantities of water at frequent intervals ; exceeding restlessness, despair and a persistent desire to destroy life or to mutilate the body, are indications for the use of *arsenicum*. Physical exhaustion to the extent of producing mental distress, seems to be the exciting cause of the self-destroying tendency in such cases.

Aurum is suicidal, because the patient fancies that his friends are untrue to him, or that he has lost the love of his associates, which he formerly possessed.

Belladonna is suicidal on account of the depression and disgust of life produced by the action of the drug. The remedy is applicable to suicidal tendencies in patients suffering from violent and acute alcoholism.

China desires to commit suicide because the patient feels weak from exhausting disease, and is consequently discouraged and unhappy, and feels that he is tormented by everybody.

Ignatia is suicidal by reason of the fact that intense grief has seized upon the heart, and there is a desire to be released from what seems to be a perpetual burden of sorrow.

Laurocerasus produces such indolence and indisposition to either physical or intellectual labor, that the patient becomes suicidal from a mere disgust of life.

Nux vomica is useful when overwork and an abuse of spirituous liquors have produced apprehensiveness and suspicion of those around him, and consequently the patient cherishes a strong propensity to suicide. Mental recklessness, desperation and hot, irritable tempers characterize such cases.

Pulsatilla is greatly concerned about domestic matters, about business and about her health. These troubles are followed by anxious, conscientious scruples to such an extent that the patient at length becomes suicidal, particularly so in the evening, and the mode of death usually selected by such a patient is drowning.

Secale cornutum is the victim of discouragement, loss of strength, and apprehension concerning the future. Hence arise tendencies to maniacal excitement, during which the patient desires to end life by drowning.

Sulphur indulges in despair of salvation, and in sadness about his own physical condition ; and for these reasons desires to die.

The chief remedies for melancholia with stupor are *baptista*, *belladonna*, *gelsemium*, *apis* and *opium*.

For dementia we rely upon *anacardium*, *apis*, *calcareae carb.*, *calcareae phos.*, *hellebore*, *kali iod.*, *mercurius*, *mercuric-methide* and *podophyllin*.

While a cure of general paresis cannot reasonably be expected, that fatal disease may be relieved, its worst symptoms mitigated, and a fatal termination postponed by the use of *alcohol*, *agaricus*, *arsenicum*, *belladonna*, *cuprum*, *nux vomica*, *mercurius*, *phosphorus*, and *veratrum viride*.

For insanity where masturbation is a prominent and distressing symptom, we have administered internally, *agnus castus*, *damiana*, *cantharis*, *biniodide of mercury*, *nux vomica*, *phosphoric acid*, *picric acid*, *selenium* and *staphisagria*. The most effectual remedies have been *picric acid* and *cantharis*.

In female patients we have secured some favorable results by local applications of *hydrastis*, of *calendula*, and of *carbolic acid*.

Where we invoke the aid of more than five hundred different remedies, we can, in a report of this nature, but briefly outline the indications for the use of a very few of the chiefest and best As

we said at the outset of this section, the "totality of symptoms" is the chief guide in the selection of a drug. When this totality is not attainable, we approximate as nearly as possible to that end. And, as we have stated, besides making a direct attack upon the enemy along the entire front, we make diversions and flank movements when these offer any promise of success.

The experiences of a single decade are necessarily imperfect, and by reason of their imperfection they are, to that degree, unsatisfactory. Yet the results attained by the use of homœopathic remedies, singly applied according to their specific indications, are of so favorable a nature as to warrant the further prosecution of the work. We shall continue our experiments and our investigations, and at the end of another ten years we hope to be able to offer the profession still more positive evidences of the effectiveness of drugs administered according to the law of similars.

We shall hopefully continue the work of developing that medical mine whose inexhaustible resources we have, as yet, but barely touched upon.

9. As a practical measure for promoting and perfecting recoveries among the insane we have adopted a system of furloughs by means of which the patient who has sufficiently improved may return to his own home and there remain until the cure is complete, or until a relapse requires his return to the asylum. This system has numerous advantages, chief among which are the following: (1) It affords an opportunity for change from the monotony of asylum life to the pleasing variety of home life, and this change sometimes relieves distressing homesickness. (2) Where progress toward recovery suddenly stops without any apparent cause, when the patient is almost well, a return to former scenes will occasionally stimulate the patient and compel renewed improvement. (3) Where furloughs are granted the restraining influences of the asylum remain with the patient after his return home. Such influences will often check the tendency to loss of self-control, and the wholesome fear of being returned to the asylum will keep a patient in the pathway of correct deportment and proper action.

We grant furloughs to patients who are nearly recovered and who have a reasonable prospect of progressing gradually toward a final cure. If necessary, such patients may be returned, should a relapse occur, without the formality and expense of a new commitment. Nearly all to whom we grant furloughs recover without being returned to the institution. Until they are finally discharged they are practically under the control and direction of the asylum officers. Patients fully understand this and agree to the necessary terms. In many instances we furnish patients with such medicines as are needed, and always we insist upon directing and controlling their mode of living. We look upon the system of furloughs as both beneficent and valuable. There is at present no specified legal sanction to these furloughs; nor is there any thing in the law forbidding the same. To remove all possible question as to the legal propriety of this system we would recommend that an amendment to the

present law be made, sanctioning the granting of furloughs for periods ranging from one month to one year.

THE SIGN-MANUAL OF INSANITY.

To appreciate the real nature of insanity we must contrast the "totality of symptoms" presented by each individual case when in health with the "totality of symptoms" presented by the same case during the course of disease. The extent of the divergence from the normal standard is thus discovered. We learn every thing in this world by comparison. An individual fact is incomprehensible, except as it is compared with other facts. The more thorough our comparisons, the more complete becomes our knowledge of facts. The practice of basing a verdict of insanity upon any one or two or three symptoms must be abandoned. The absolute "totality of symptoms" must be ascertained and a comparison with the symptoms of health instituted before we can render a just verdict of the true condition of affairs. In making up our judgment the plan of considering one symptom at a time is vicious in its tendency, for a system of elimination may thus be inaugurated which, if persisted in, would eliminate every given case of insanity. You cannot take a single line or color from a picture and declare from that line or shade the true and entire nature of the picture itself. A given line or shade may indicate, to a certain extent, the character of a picture, but the whole truth is not developed by the exhibition of a minute or isolated fragment.

Accumulating all that can be developed, and investigating as a whole the broad field of insanity we come to the final conclusion that mental derangement is based upon, or is a result of, physical disease. We are cognizant of mental manifestations only through a physical media. When that media becomes diseased, blunted, deranged or disturbed in the performance of its ordinary functions, then we have mental aberrations of various and varying degrees. Therefore, we should consider not alone the mental derangements, but the physical disorders which underlie them in making up our 'totality of symptoms.'

Back of all physical media is that subtle something which is called the soul. Brains vary in size, strength, activity and quality; and, perhaps, there may be similar variations in the souls themselves. Some souls are winged for lofty and magnificent work; others seem to be soaked in meanness from the outset and incapable of performing any decent task. Still other souls are like the sensitive plant, which the slightest touch of material dross withers and closes against its surroundings. Now while, as we have said, mental manifestations are developed only through a physical media, it may, we think, be possible that the qualities of souls may have their primal influence upon the physical media. Hence, a strong and brave soul may resist the tendencies to insanity induced by diseases of the brain. Again, the sensitive soul, on the one hand, or the gross,

mean soul, on the other, may, from undue sensitiveness or from undue stupidity, drift, almost irresistibly, toward mental aberration. We cannot begin to describe all the signs in the manual of insanity. One or two may, however, serve as guides to almost unlimited explorations. Each sign will afford direction to the location of a vast array of abnormal symptoms. We consider as one of the strongest evidences or signs that a patient has crossed the line which separates sanity from insanity the fact that *he has lost his natural powers of self-control*. Some lose this power to but a slight degree and need but little assistance to enable them to maintain themselves according to their customary standard. Others need the absolute and entire control of those who have them in charge. Some patients lose their self-control in their own homes but recover it and retain it so long as they are kept under the benign influence of an insane asylum. They will remain quiet and pleasant and obey every order so long as they are duly committed to and confined in an institution; but they give up every effort at self-control as soon as they are removed to their homes. Other patients have no regard for either the endearments of home and society or the discipline of asylum life, and must be ministered to in every particular by competent attendants until the work of restoration has far advanced. Where the loss of self-control has become so marked that the patient is dangerous, either to himself or others, he becomes a fit subject for asylum care. Oftentimes this danger is unrecognized or unheeded until the overt act of murder or suicide arouses the hitherto dormant sense of danger in the minds of careless friends.

Another chief sign of insanity is the presence of delusions, hallucinations, or illusions. Delusions are false beliefs; hallucinations are false sights; illusions are mistaken sights. Where delusions depend upon superstitions common to certain nations or peoples, or where they depend upon the follies of unwise education, they cannot be called insane delusions. But when delusions arise during the progress of cerebral disease, and where they are developed, not by ancestral superstitions or false teachings, but by the cerebral disease itself, then such delusions are to be clearly marked as insane delusions.

From the "sign-manual" we pass to a brief consideration of the

CAUSES OF INSANITY.

These may be either remote or exciting. Remote causes may in the main, be classified under the heads of hereditary tendencies, and of inherent and acquired predispositions. In the former class we place those who have sprung directly from insane parentage. This class is fortunately a limited one; for where families are known to have insane members there is a growing hesitancy about marrying into them. This is a sad evidencing of the fact that "the sins of the parents descend upon the children." And yet, while it is a terrible misfortune to be under such a ban, this hesitancy about marry-

ing into families having a known taint of insanity springs from a wise determination of nature to rid herself of those who have unfortunate tendencies toward the physical and mental disintegration of the race. It is fortunate for the human race that those who become insane through hereditary tendency are apt to develop their disease early in life and are apt to be short lived. Hence the general drift is toward the breeding out or extermination of inherent insanity, and thus the doctrine of the survival of the fittest is again exemplified.

The second remote cause of insanity is inherent predisposition. This predisposition may not necessarily depend upon insane parentage, but it does depend upon the physical and mental shaping of offspring by parents who, while not insane, have a diathesis tending in that direction. Hysteria in the mother may develop a predisposition in the child which impels that child toward insanity. The same may be said of drunkenness in the father; of ungovernable passions in either parent; of untempered religious enthusiasm; of an insatiate desire to get rich, and so on to the end of the chapter, that is filled with the record of unwise, and persistent, and worrying effort in a single unfortunate line. Could the effects of predisposition be clearly shown, there would be developed a mighty warning to those who assume the responsibility of perpetuating and multiplying the race.

There are acquired predispositions as follows:

1. Imperfect nutrition.
2. Slight and almost imperceptible injuries to the brain in childhood.
3. The excitement of fears in the minds of children for purposes of government; the diabolical work of fiendish parents and nurses.
4. Overtaxing the undeveloped physical powers.
5. Unwise forcing of the mind in its incipient stage of development.
6. Premature and unnatural excitement of the sexual organisms of the young.

All these may develop predispositions to insanity; and they are causes of mental disturbance which should be carefully guarded against by those having the young in charge.

One of the most common exciting causes of insanity is physical disease at or after maturity. Whatever tends to deplete and exhaust the physical system tends to the production of insanity. Physical disease is produced by various influences, but chiefly by the reckless extravagance of the young in making undue drafts, either by toil or pleasure, upon the natural resources of the system. To be rich, to be great, to be honored, and to be loved are ambitions which fill the American heart. And the over-zealous struggle for these prizes tend to the production of those physical diseases which culminate in insanity. Who can calculate the dangers that spring from the over-wear of work and worry? No people in the world work harder than do the American people. This excess of toil might be

endured were it not for the added grind upon the vital forces of a worrying spirit. We toil all day for the accomplishment of a certain purpose, and worry all night, with fear and trembling, lest the results of our toil may not be the ripest and the rarest of all possible fruits. The young worry about their studies in school; they worry about their appearance and their prospects when associating with others; they worry lest they shall fail to get rich; they worry lest they shall lose some strongly inviting prize in life. And this leads us to another exciting cause of insanity, namely, disappointed ambition. This cause finds little place in statistical tables, but it exists nevertheless. There is no country in the world where the possibility of rising to eminence, to fame, and to fortune is so broad, bright and encouraging as in this favored land. And yet there is no country in the world more replete with the broken wrecks of disappointed ambition than this. We meet such wrecks in every street and thoroughfare of the great cities, and along the highways and byways of the country. They flock about the tables of the money changers in Wall street; and they hover, like flies, in the neighborhood of every office or position of honor, political or otherwise, throughout the length and breadth of the several States. When the means used for the gratification of man's ambition fail; when hope deferred has made the heart sick; then there creeps in a mental state and a physical condition which favor most strongly the production and the ripening of insanity. If we were called upon to utter in a single sentence the warning which is most needed, by the young men and women of this continent at the present time, we should say, in the language of Wolsey to Cromwell:

"I charge thee, fling away ambition;
By that sin fell the angels; how can man then,
The image of his Maker, hope to win by't?"

A reasonable ambition is necessary for the accomplishment of every noble task. That ambition is unwise, unholy, and unapproved by God, when under its effects the young break down and wear out prematurely; and when under its sweeping shock they become disgruntled wrecks which even the gentle ministrations of an insane asylum cannot possibly repair. Moderate ambition will lead to ripe achievement; excessive ambition is worse than the battle-path of glory, for it "leads but to the grave" direct; while the former drags its victims through years of weary suffering before the rest of the tomb is vouchsafed to their tired bones.

ON CLASSIFICATION AND DIAGNOSIS.

Insanity has been classified in numerous and confusing ways by many writers. For practical purposes, we believe that this classification should be rendered as brief and simple as possible. All cases of mental depression, of whatever variety or shade, may be classed under the head of melancholia. All classes of unnatural excitement are classed under the head of mania. Failures of mental pow-

ers are styled dementias. Beyond these classes we have a peculiar and specific form of insanity known as general paresis. Under these four heads may be ranged, appropriately, nearly every case of mental aberration. Subdivisions of these classes may be made, to an almost unlimited extent. Every cause, condition, or tendency has been utilized to complicate our classification and enlarge our nomenclature. Many distinguished writers have invented peculiar, and perhaps strikingly original forms of classification. Many of these forms tend more to confusion than to a proper understanding of the subject. Medical students should first be taught the alphabet of classification; and this should be made as simple as possible, that confusion and misunderstanding may be avoided.

Some patients pass through one form of insanity, thence to another, and so on through the list. Thus we may have melancholia at the outset, followed by mania, with absolute dementia as a termination. We now diagnose our cases under three heads: 1. Primary diagnosis; 2. Intermediate diagnosis; 3. Conclusive, or terminal diagnosis. In this way we shall be able to discover and record how frequently cases of melancholia terminate in mania; and how frequently cases of melancholia and mania terminate in recovery, or in dementia; and again, we may be able to discover how many cases there are which, while appearing to be merely melancholia or mania at the outset, pass finally into the positive and well-defined condition of general paresis.

RESULTS OF TREATMENT, RECOVERIES, ETC.

In the tables of statistics, appended to this report, will be found those which show both the results attained during the past year, and, likewise, those achieved at this asylum during its ten years' practical experience. In these tables we note recoveries, improvements, chronicities, and deaths. With regard to recoveries, we consider a patient fully restored, when the signs indicating the presence of insanity have passed away, and when the patient has resumed, with but slight changes, his normal mental state. Each recovery must be considered as an entity by itself. No one recovery can be fully compared to another recovery, because as each individual temperament differs, so each recovery differs. Yet we find similarities in recoveries to such an extent that we may safely and properly classify them.

There are three general classes of recoveries: 1. Where the patient resumes in every way the actual condition which existed before the attack of insanity. We find that people who have inherited tendencies to insanity, and those having strong predispositions to insanity from parental impress, and cases of recurrent insanity, all, when recovered, very closely return to their normal mental state. No change from their previous condition, either physical or mental, is observable.

2. We have a class of cases, mostly of the melancholic type, which upon recovery rise a little above the normal health standard. Such

persons are freed from their delusions about their own persons, or of their prospects; are strong in body and mind; are natural in every way, except that their friends all remark an increased or exaggerated cheerfulness and hopefulness.

3. We find in our experience a class of cases which recover, but with an increased tendency to flesh; and with a somewhat sobered and modified mental state. A person may have been thin, wiry, and unusually active and energetic previous to the inception of insanity. After recovery he has gained in flesh some fifteen or twenty pounds; is quiet and self-controlled; is free from delusions; is able to work at his ordinary occupation; and there is no other perceptible change except that he is more moderate in mental and physical activity than before his attack.

We have watched these three classes of recoveries with great interest. We find that those who regain, to a nicety, the actual physical and mental condition which existed previous to sickness are more liable to relapse than either of the other classes. This is strange but true.

We find that the cases of melancholia which recover and pass a little above the normal health standard, after a while seem to wear out their excessive cheerfulness and to sober down to the normal standard. Sometimes they even sink somewhat below that standard. We have seen this excessive cheerfulness last, however, in some patients for several years.

The patients of the third class, having become more conservative of their powers than ever before, are most likely to remain strong and well, in body and mind, through life. Hence it is our aim, in order to secure the best and most permanent results, to cause our patients to gain flesh during the process of recovery; and during this increase of adipose tissue, we endeavor by moral precept and by repeated injunctions to impress upon the minds of those who are recovering the necessity for unusual self-control and moderation after returning to the active pursuits of life.

During the past ten years 1532 patients have been admitted to this institution, and 1250 have been discharged. Of the whole number discharged, 566 were fully recovered, 183 were improved, and 330 were discharged as unimproved. The latter had, as a rule, passed into the chronic and hopeless stage. It will be seen from the above that 45.28 per cent of those discharged were fully recovered. 14.64 per cent were improved, and 26.40 per cent passed into a state of chronicity. Considering the fact that patients were admitted in every stage and degree of insanity (a large number having been insane, before admission, for many years), we may, I think, feel a reasonable satisfaction in having recovered so goodly a percentage of those committed to our care. If there could be a law compelling the prompt and early treatment of insanity, we believe that the results would then be far more satisfactory than now. The people insist upon having the victims of small-pox or cholera secluded and

properly treated. Why should not the victims of insanity be equally protected in their rights, and the community protected in its, by an insistence upon an early and judicious treatment of such cases?

Insanity springs, as we have said, from a depleted, exhausted, worn and wasted physical condition. If the processes of repair were favored by an early seclusion, and by prompt treatment, we believe that there is hardly another disease, as formidable as insanity, that is so readily cured when the right means are applied.

PREVENTION OF INSANITY.

A consideration of the causes which produce insanity leads to the conclusion that many of these causes are avoidable, and that insanity may be prevented by the exercise of due and timely care. Still we must remember that some of the causes which induce mental disturbance were inborn or predisposed, and therefore, in many instances, life-continuing. Under the effect of a highly polished, but imperfect and one sided civilization, we find the exciting causes of insanity looming up on every hand, oppressing and pursuing humanity even from the mother's womb to the final shelter of the coffin and the crypt. Excesses of all kinds tend to produce insanity. Moderation is the essence of prevention; but who can be moderate under the stimulus of a transmitted, highly nervous, and sensitive organism? Who can practice the powers of self-reserve when the prizes of life stand out before us to become the property of the hands that grasp them first? Who can be self-contained amid the hurry, and rush, and whirl of American life? A new philosophy must, indeed, pervade the minds of the young before moderation can be practiced. We must come to appreciate the fact that the prizes of wealth and of fame are not worth the risks and dangers which beset those who would attain them. We must come to realize that long life, peace of mind, and moderate happiness are better, and more acceptable to the philosophic soul, than are the best rewards of wealth or fame, coupled with the retribution of mental destruction which too often follows the acquirement. Developing and maintaining physical health, checking and restraining the impulses of ambition, and cultivating a spirit of satisfaction with moderate achievements, will do more than anything else to prevent the development and increase of insanity in the new world.

Another main requisite is to secure, nightly, an abundance of refreshing and recuperating sleep. Very few young and growing people can live safely on less than eight hours' sleep in every twenty-four.

The present system of education, as practiced in our public schools and academies, should be modified and reformed. There should be more freedom, more fresh air, and more fun; and less of close confinement to hard benches and harder study. Especially should girls be restrained from hard study till after the menstrual function is safely established.

If our people would adopt these measures of prevention there would be far less of business engrossment ; far less of aspirations for wealth and power which can never be gained ; far less of disappointed ambition ; and far more healthfulness of the body and cheerfulness of the mind. The Indian rarely becomes insane. Some ascribe this immunity to the fact that he lives much out of doors. Beyond this, however, he lives in an atmosphere of contentment, and of harmony with the great spirit of nature. We do not advocate relapses of civilized beings to the condition of the Indian ; but while we may retain much of the pure intellectual development, and much of civilized enjoyment, we may yet with both pleasure and profit imitate the Indian to the extent of securing an abundance of fresh air and out door exercise. And we may, likewise, profitably imitate him in that contentment of spirit which comes from the putting away of unprofitable ambitions. Man may progress intellectually to a condition of rare refinement and power ; but there are limits to progress even in this direction. Unwise development in an intellectual line must be restrained, or premature decay, both of men and of nations will inevitably follow. The temple of Solomon, the wise, has crumbled ; and the centres of Athenian wisdom have become the sporting grounds of ignorant beggar boys.

Parents should sense and shun the dangers of unwise education, and especially should they guard and restrain those of precocious tendencies. The youth of our land should be trained after the fashion of the Persians who taught their sons to ride magnificently on horseback, to shoot with accuracy, and to always speak the truth ; and when those accomplishments were acquired they left them to pursue their mental work in the manner best suited to their individual tastes. If subjected to such methods, even the ungainly in body, and those who are predisposed to weak and erratic conditions of mind, would finally develop approximate symmetry and usefulness. To win the prize of a sound body and a healthful mind, and to keep them both in health should be the highest ambition. To acquire such means for usefulness on earth, one has but to imitate the lives of such men as Chancellor Kent, Sir Walter Scott, and Adam Clarke.

In addition to the dangers of excessive mental strain which beset the young in our present hot-beds of learning, we find a leading and growing tendency to excess in social pleasures. We find that the days are passed in exhausting study, and the nights given over to unrestrained social enjoyments. Business and pleasure should always find a happy and harmonious combination in our daily lives, but the amount of each should be very much reduced in the daily round of the average young American. Excessive athletic sports are likewise dangerous, and produce disastrous consequences upon both the heart and the brain. Moderate exercise, moderate study, moderate play, and abundance of fresh air, nourishing food, and good, but not over-hilarious, companionship should be steadily secured.

Then the dangers of insanity will be averted, or at least mightily mitigated.

SCOPE OF THE INSTITUTION.

The design of this asylum is to cure as many as possible of our fellow beings who are afflicted with insanity. It has thrown open its doors to almost every applicant. We receive patients from every class and grade in the community; and it is our aim to afford to each individual such care and comfort as may justly be required, and such as may best promote recovery. Here is found seclusion from those toils and worries which have in the outer world precipitated mental disease. Here are provided the means for continued and absolute repose from the exciting causes of insanity. Here the patients are provided with such nourishment and such medicament as their necessities demand. Here for the first time, perhaps, in the experiences of many, cleanliness is insisted upon. Here regular hours for sleep, recreation, occupation and amusement are ordered. And here the whole tenor of life is made, so far as possible, to accord with the requirements of an ideal sanitary school. All the laws of health and correct living are persistently taught, and carefully enforced. But while the scope of this institution has been to care for every class of the insane, we find in our experience one class of patients which should not, we believe, be sent to our State asylums for the acute insane. The class we refer to is composed of persons who have been charged with crimes but acquitted, or not brought to trial, on the ground of insanity. This class should, of course, be cared for in the best possible manner, and if practicable, recovered from their insanity. But persons whose insanity has brought them to the commission of crimes, and to the cognizance of the courts, should be cared for in a separate institution established for their special benefit. The class of criminal lunatics is small and peculiar, and this is fortunate. So far as our experience with the insane goes, we are obliged to state that most of the disturbances in asylums, and interferences with the cure of favorable cases, spring from this criminal class. These criminal lunatics are the *bete noir* of every asylum, for they usually combine vicious and depraved tendencies with their mental aberrations. They are usually peculiar cases of melancholia, and of what has sometimes been called "reasoning mania." They have little or no regard for truth; their vision is through a false and distorted medium. Themselves criminals they seek to drag down every associate to their own level; they breed insubordination and distrust instead of obedience and confidence; they excite the patients with whom they are obliged to associate, to such an extent that they sometimes jeopardize the chances of recovery in an otherwise hopeful case. In justice to the masses of insane who are free from criminal tendencies, these criminal lunatics should not be sent to the wards of our general asylums. A special asylum should be constructed for the benefit of this strange and unfortunate class. When a criminal lunatic has been committed to an

asylum it should be for a term of years, in order to prevent the unwise and premature review of his case before the courts on the grounds of alleged recovery.

PATHOLOGICAL.

During the past seven years we have made post-mortem examinations in every case where the friends have permitted us to do so. In quite a number of instances we have verified the prominent and characteristic pathological changes caused in the brain by the disease known as general paresis. We have likewise verified some of the experiments of Schroeder van der Kolk, relative to manias and dementias, as recorded in his "Pathology of Mental Disease." Amid our almost numberless duties it becomes impossible to make such careful and critical pathological investigations as we wish; but we have made arrangements with a distinguished microscopist for thorough microscopical examinations of such pathological specimens as may hereafter come to our hands. The results of these examinations will in due time be furnished to the profession. Those who might wish to hurry us, must remember that progress in every field of investigation is, at the very best, made with but a snail's pace; and they should remember that patience and time are absolute requisites for the accomplishments of every important task.

ACKNOWLEDGMENTS.

For the unfailing kindness, encouragement and support which I have invariably received, during the past seven years, from the board of trustees of this institution, I desire to record my sincere and grateful acknowledgements.

It affords me great pleasure to cordially commend, for their work during the year, my assistant physicians, Drs. Williamson and Kinney. To the indefatigable and pains-taking care of Dr. Williamson, I am indebted for the elaborate statistical tables which adorn this report.

I likewise tender my acknowledgments to the steward, the assistant steward, the supervisors of the wards, and the heads of each subordinate out-door department, for the fidelity and earnestness with which they have performed their respective duties during the year just ended.

As usual, the clergy of Middletown and the choirs of the various churches have rendered satisfactory and noble service to our patients during each sabbath of the year. Spiritual consolation has been afforded to all our patients, whenever any of them have made a request, by Rev. Fathers Pendergast and McClancy of the Roman Catholic faith, and Rev. Messrs. Lewis, Page, Beattie, Clarke, Olney and Harrower of the Protestant faith.

The publishers and proprietors of the following papers and periodicals have generously contributed the same for the use of our inmates: The Middletown *Argus* and Middletown *Press*;

the *Independent Republican* and *Goshen Democrat*, of Goshen ; the *Warwick Advertiser* ; the Port Jervis *Tri-States Union*, and *Gazette* ; the New York *Medical Times* ; and *Harper's Weekly*, *Harper's Monthly*, *Harper's Bazar* and *Harper's Young Folks*.

To every worker in this asylum who has performed honestly and conscientiously his or her duty ; and to every friend of this asylum who has offered encouragement by kindly word or deed, we tender our heartfelt thanks. And to Him who protects and cares for both individuals and institutions, we offer a prayer of gratitude for the beneficent protection vouchsafed to the patients and employees of this asylum throughout the varied experiences, cares, trials and joys of another year.

CONCLUSION.

This institution has been in operation a little more than ten years. The results achieved have placed the asylum upon a substantial basis before the eyes of the people. It is no longer an experiment, but its capabilities and possibilities are assured. We are at the present time furnished with better facilities for the care of the insane than those which we enjoyed a few year ago. Many difficulties have been overcome, and many obstacles have been surmounted. Much has been done but more awaits accomplishment. We believe that this institution, as it enters upon the second decade of its existence, is in such a condition that it is capable of developing other and still better results than those of the past.

Very respectfully,

SELDEN H. TALCOTT,
Medical Superintendent.

STATISTICAL TABLES.

EXPLANATORY NOTES PRECEDING THE DIETARY AND STATISTICAL TABLES.

1. Movements of the population from October 1, 1883, to September 30, 1884.
2. Showing percentage of recoveries on whole number discharged.
3. Showing percentage of deaths on whole number treated.
4. Form of disease in those admitted.
5. Supposed or assumed causes of insanity.
6. Number of attacks.
7. Duration of insanity before entrance.
8. Duration of treatment in those recovered.
9. Received on first and subsequent admissions.
10. Table showing the hereditary tendencies.
11. Degree of education.
12. Civil condition.
13. By whom supported.
14. Nativities.
15. Occupations.
16. Of the suicidal and homicidal attempts and tendencies in those admitted.
17. Deaths and their causes.
18. Ages of those who died.
19. Percentage of labor performed by patients and by hired help.
20. Number of men employed, kind of work done and average per cent of male patients employed daily in each month during the year ending September 30, 1884.
21. Number of women employed, kind of work done and average per cent of female patients employed daily in each month during the year ending September 30, 1884.
22. Dietary table.
23. Extra dietary table.

TABLE No. 1.

Movements of the population from October 1, 1883, to September 30, 1884, within the year.

	Males.	Females.	Total.
Number at the beginning of the year.....	136	124	260
Number admitted in the year.....	86	77	163
Whole number present in the year.....	222	201	423
Discharged recovered	38	30	68
Discharged improved	10	6	16
Discharged unimproved.....	22	13	35
Discharged dead.....	14	7	21
Discharged eloped	1	...	1
Remaining at end of year.....	137	145	282
	=====	=====	=====

TABLE No. 2.

Showing the percentages of recoveries, on the whole number of discharges.

YEARS.	Number discharged.	Recovered.	Per- centages.
1874.....	14	7	50.00
1875.....	72	30	41.66
1876.....	110	46	41.81
1877.....	100	46	46.00
1878.....	138	61	44.20
1879.....	119	48	40.33
1880.....	131	61	46.56
1881.....	124	61	49.11
1882.....	151	69	45.69
1883.....	150	69	46.00
1884.....	141	68	48.22
	=====	=====	=====

TABLE No. 3.

Showing percentages of deaths on whole number treated.

YEARS.	Whole number treated.	Deaths.	Per- centages.
1874.....	69	4	5.79
1875.....	152	11	7.23
1876.....	195	14	7.17
1877.....	228	14	6.14
1878.....	284	15	5.28
1879.....	283	15	5.30

YEARS	Whole num- ber treated.	Deaths.	Per- centages.
1880.....	311	13	4.18
1881.....	340	15	4.41
1882.....	391	20	5.11
1883.....	410	18	4.39
1884	423	21	4.96

TABLE No. 4.

Form of disease of those admitted.

	Males.	Females.	Total.
Mania, acute.....	9	4	13
Mania, acute delerious.....	3	4	7
Mania, sub-acute.....	22	7	29
Mania, chronic.....	9	8	17
Mania, recurrent.....	..	2	2
Melancholia, acute.....	7	31	38
Melancholia, with stupor.....	1	1	2
Melancholia, chronic .....	..	2	2
Dementia, primary.....	5	2	7
Dementia, secondary.....	10	10	20
Dementia, alcoholic.....	3	1	4
Dementia, paralytic.....	1	..	1
Dementia, senilis.....	5	4	9
General paresis.....	8	1	9
Epilepsy with mania	3	..	3

TABLE No. 5.

Supposed or assumed cause of insanity.

	Males.	Females.	Total.
Anger.....	..	1	1
Apoplexy.....	1	..	1
Abuse of opium.....	1	1	2
Climaxis.....	..	2	2
Death of child.....	1	3	4
Death of husband. ....	..	2	2
Death of sister.....	..	1	1
Death of wife.....	1	..	1
Disappointment in love.....	..	1	1
Domestic trouble.....	2	5	7
Fright .....	..	1	1
Hereditary tendencies.....	9	7	16
Intemperance	12	1	13
Insolation.....	7	..	7
Injury to head.....	2	2	4

	Males.	Females.	Total.
Injury to spine.....	1	..	1
Inability to have children.....	..	1	1
Illness of husband.....	..	1	1
Maternal impressions.....	1	..	1
Masturbation.....	2	2	4
Overwork and worry.....	13	6	19
Physical disease.....	8	7	15
Predisposition	16	8	24
Pregnancy.....	..	3	3
Religious excitement.....	3	1	4
Suppression of menses.....	..	2	2
Senility .....	..	2	2
Unknown.....	6	17	23

TABLE No. 6.

Number of attacks.

	Males.	Females.	Total.
First.....	57	52	109
Second.....	22	15	37
Third.....	5	5	10
Fourth.....	..	1	1
Fifth.....	1	..	1
Sixth	1	1	2
Seventh.....	..	1	1
Eighth or more.....	..	2	2

TABLE No. 7.

Duration of insanity before entrance.

	Males.	Females.	Total.
Under one month.....	17	16	33
From one to three months.....	20	11	31
From three to six months.....	12	18	30
From six to twelve months.....	9	7	16
From one to two years	10	6	16
From two to five years.....	10	10	20
From five to ten years.....	2	3	5
From ten to twenty years.....	2	2	4
Over twenty years.....	1	1	2
Unknown.....	3	3	6

TABLE No. 8.

Duration of treatment of those recovered.

	Males.	Females.	Total.
Less than two months	1	4	5
From two to four months	7	7	14
From four to six months	10	1	11
From six to eight months	6	2	8
From eight to twelve months	6	9	15
From twelve to eighteen months	4	3	7
From eighteen months to two years	2	3	5
From two to four years	2	1	3
From four to eight years . . . . .	..	..	..

TABLE No. 9.

*Received on first and subsequent admissions.**

Number of admission to any asylum.	Males.	Females.	Total.
First	57	53	110
Second	22	15	37
Third	5	4	9
Fourth . . . . .	..	1	1
Fifth	1	..	1
Over five admissions	1	4	5
Total of cases	86	77	163
Total of persons	85	77	162

TABLE No. 10.

Table showing the hereditary tendencies.

	Males.	Females.	Total.
Paternal branch	14	10	24
Maternal branch	11	13	24
Maternal and paternal branches	2	1	3
Insane relations	11	9	20
None	17	17	34
Unknown	31	27	58

* Subsequent admissions 1.

TABLE No. 11.

Degree of education.

	Males.	Females.	Total.
Collegiate.....	7	2	9
Academic.....	18	15	33
Common school.....	51	48	99
Reads and writes.....	3	5	8
Reads only.....	3	4	7
No education.....	4	3	7
	=====	=====	=====

TABLE No. 12.

Civil condition.

	Males.	Females.	Total.
Single.....	42	29	71
Married.....	36	37	73
Widowed.....	7	10	17
Divorced.....	1	1	2
	=====	=====	=====

TABLE No. 13.

By whom supported.

	Males.	Females.	Total.
County, as pauper or indigent.....	46	38	84
Self or family.....	40	39	79
	=====	=====	=====

TABLE No. 14.

Nativities..

	Males.	Females.	Total.
United States.....	74	65	139
England.....	2	1	3
Ireland.....	7	8	15
Scotland.....		1	1
Germany.....	2	2	4
Portugal.....	1	..	1
	=====	=====	=====

TABLE No. 15.

Occupations.

	Males.	Females.	Total.
Bookbinder.....	1	..	1
Book-keeper	5	..	5

	Males.	Females.	Total.
Broker	2	..	2
Brakeman	1	..	1
Carpenter	4	..	4
Clerk	4	..	4
Domestic.....	..	9	9
Engineer	1	..	1
Fireman	1	..	1
Farmer	19	..	19
Harnessmaker	1	..	1
Housekeeper.....	..	50	50
Laborer	12	..	12
Lawyer	1	..	1
Minister	1	..	1
Milliner.....	..	1	1
Manufacturer	2	..	2
Mechanic	3	..	3
Merchant	2	..	2
None	9	14	23
Physician	3	..	3
Plumber	1	..	1
Photographer	1	1	2
Painter	3	..	3
Saloon-keeper.....	2	..	2
Salesman	2	..	2
Student.	1	..	1
Teacher .....	..	2	2
Tanner	1	..	1
Tinsmith	2	..	2
Upholsterer	1	..	1

TABLE No. 16.

Of the suicidal and homicidal attempts and tendencies in those admitted.

	Males.	Females.	Total.
Suicide threatened.....	..	2	2
Suicide attempted	4	9	13
Homicide threatened.....	14	10	24
Homicide attempted.....	7	2	9
Committed homicide and attempted suicide.....	..	..	..
Threatened suicide and homicide.....	..	5	5
Attempted suicide and homicide.....	1	1	2
Threatened homicide and attempted suicide....	..	2	2
Attempted homicide and threatened suicide ....	..	..	..
Threatened homicide and meditated suicide ....	..	1	1
Meditated suicide	8	9	17
Meditated homicide	4	1	5

TABLE No. 17.

Deaths and their causes.

Primary.	Secondary.	Males.	Females.	Total.
Mania, acute delirious..	Exhaustion	4	1	5
Mania, chronic	Exhaustion	1	..	1
Mania, chronic	Paraphlegia & exhaus'n	1	..	1
Melancholia, with stupor.	Exhaustion .....	..	1	1
Dementia, secondary...	Exhaustion .....	..	1	1
Dementia, senilis	Exhaustion	1	3	4
Dementia paralytica...	Exhaustion	1	1	2
General paresis.....	Exhaustion	4	..	4
General paresis.	Apoplexy	2	..	2
		<u> </u>	<u> </u>	<u> </u>

TABLE No. 18.

Ages of those who died.

	Males.	Females.	Total
From 20 to 25 years.....	..	1	1
From 25 to 30 years.....	..	1	1
From 30 to 35 years.....	2	1	1
From 35 to 40 years.....	3	..	3
From 40 to 50 years.....	4	1	5
From 50 to 60 years.....	3	1	4
From 60 to 70 years.....	2	..	2
From 70 to 80 years.....	..	1	1
From 80 to 90 years.....	..	1	1
	<u> </u>	<u> </u>	<u> </u>

TABLE No. 19.

Percentage of labor performed by patients and by hired help.

	Per Cent.
Male patients (summer).....	35.18
Male patients (winter)	33.34
Female patients (entire year).....	31.48
Hired help (farm, garden and lawn)	68.18
Patients (farm, garden and lawn).....	31.82
Hired help (boiler-house and laundry).....	72.22
Patients (boiler-house and laundry).....	27.78
Hired help (general house-work).....	60.61
Patients (general house-work).....	39.39
Hired help (sewing-room).....	20.00
Patients (sewing-room)	80.00
Hired help (kitchen)	90.00
Patients (kitchen).....	10.00
	<u> </u>

TABLE No. 20.

Number of men employed, kind of work done, and average per cent of male patients employed in each month during the year.

MONTH.	DESCRIPTION OF WORK.			Total men employed.	Daily average population.	Per cent employed.
	General.	Ward.	Dining-room.			
October	12	13	8	33	132	25
November	10	16	13	39	132	29.45
December	9	14	9	32	134	23.80
January	11	9	11	31	138	22.48
February	13	12	10	35	144	24.30
March	10	14	8	32	148	21.62
April	16	12	8	36	150	24
May	13	13	11	37	150	24.66
June	11	14	10	35	150	23.33
July	14	12	12	38	153	24.83
August	12	14	12	38	149	25.80
September ...	13	14	12	39	150	26

TABLE No. 21.

Number of women employed, kind of work done, and average per cent of female patients employed daily in each month in the year.

MONTH.	DESCRIPTION OF WORK.					Total women employed.	Daily average population.	Per cent employed.
	General.	Ward.	Dining Room.	Sewing Room.	Laundry.			
October.....	24	13	10	10	2	59	126	46.82
November.....	24	13	11	13	2	63	132	47.72
December.....	29	14	11	10	2	66	138	47.82
January.....	27	12	10	9	1	59	139	42.44
February.....	30	14	10	12	2	68	140	48.57
March.....	31	10	10	11	2	64	141	45.31
April.....	32	14	11	11	2	70	146	47.94
May.....	30	15	11	12	1	69	154	44.80
June.....	33	21	14	11	1	80	156	51.28
July.....	31	20	14	10	1	76	154	49.35
August.....	28	16	15	8	2	69	154	44.80
September.....	27	13	13	7	2	62	154	44.22

TABLE NO. 22.

Dietary table, showing the regular bill of fare for patients.

SUNDAY.

<i>Breakfast.</i>	<i>Dinner.</i>	<i>Supper.</i>
Bread and butter, coffee, oatmeal and syrup, sausage and potatoes.	Roast beef, potatoes, celery or lettuce, onions, rice pudding or pie, bread and butter, fruit or berries.	Bread and butter, tea, cake, sauce or berries.

MONDAY.

Bread and butter, oatmeal and syrup or milk, beef stew or beef-steak, coffee or cocoa.	Meat soup, potatoes, turnips or peas, boiled beef, lettuce, bread and butter, fruit.	Bread and butter, hominy and syrup or milk, sauce or berries, tea.
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TUESDAY.

Oatmeal and milk, hash or ham, boiled potatoes, bread and butter, coffee.	Corned beef, boiled cabbage or sweet corn, or string beans, potatoes, radishes or raw onions, buttermilk, bread pudding, bread and butter, fruit.	Bread and butter, apple sauce or stewed prunes, soda crackers, tea.
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WEDNESDAY.

Bread and butter, oatmeal and syrup, sausage or fresh fish, potatoes, coffee.	Roast beef, potatoes, onions or beets, milk, bread and butter, lettuce, fruit.	Bread and butter, boiled rice with milk or syrup, sauce or berries, tea.
---	--	--

THURSDAY.

Oatmeal and milk, beef stew or beef-steak, potatoes, bread and butter, coffee.	Vegetable soup, boiled beef, potatoes, turnips or peas, pickles or cold slaw, bread and butter, lettuce, fruit.	Bread and butter, sauce or berries, cheese, tea.
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FRIDAY.

Clam stew or chowder, or boiled eggs, or broiled mackerel, or sweet potatoes, oatmeal and syrup, bread and butter, crackers, coffee.	Fresh fish, potatoes, onions or canned tomatoes, boiled rice, milk or buttermilk, bread and butter, lettuce, fruit.	Stewed oysters, crackers, bread and butter, tea.
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SATURDAY.

Breakfast.

Hash or ham, oat-meal and milk, potatoes, bread and butter, coffee.

Dinner.

Corned beef and cabbage, potatoes, parsnips or egg-plant, or baked beans, bread and butter, radishes or raw onions, fruit.

Supper.

Bread and butter, sauce or berries, rice and syrup, tea.

Breads of four varieties, namely: Graham bread, white bread, rye bread, and Vienna bread are furnished, at each meal, throughout the institution.

During the summer season the number of vegetables for dinner is increased whenever the products of the garden so admit.

Occasionally, during the winter, roast pork is allowed instead of roast or boiled beef.

TABLE No. 23.

Extra or special diet.

Selections from the following articles of food are made for special cases by the physicians; extra or special diet is directed with a view of promoting the welfare or satisfying the tastes of those patients who may need a change of fare, or who may need unusual quantities of any particular variety of food:

Apples, baked, stewed or roasted.	Eggs, poached, on toast.
Bananas.	Fish, bass, shad, trout, white fish.
Beef-tea.	Farina.
Beef-extract (Johnston's).	Game.
Beef steak.	Grapes.
Corn-starch, prepared in various styles.	Gruel, barley, oatmeal, etc.
Candy.	Ham and eggs.
Chocolate.	Horlick's food.
Cocoa.	Jelly, calves' feet, currant and wine.
Chicken, broiled, roasted, stewed or served in soups.	Lamb chops.
Cherries.	Maccaroni.
Eggs, raw, boiled or fried.	Mellin's food.
Milk and lime water.	Milk, cold or hot, buttermilk, skimmed milk.
Oats, shredded.	Quail.
Oranges.	Rabbits.
Oysters.	Strawberries.
Peaches.	Toast, dry, buttered or milk.
Pears.	Turkey.
Plums.	Veal.
Potatoes, baked, or stewed in cream.	Vension and jelly.
Puddings of many varieties.	Wine of various kinds.

DECENNIAL STATISTICAL TABLES.

- | | |
|------------------------|------------------------------------|
| 1. For the year 1874. | 10. For the year 1883. |
| 2. " " 1875. | 11. " " 1884. |
| 3. " " 1876. | 12. General statement of the |
| 4. " " 1877. | operations of the asylum |
| 5. " " 1878. | from May, 1874 to Sept. |
| 6. " " 1879. | 30, 1884. |
| 7. " " 1880. | 13. General statistics of the asy- |
| 8. " " 1881. | lum from its opening to |
| 9. " " 1882. | Sept. 30, 1884. |

TABLE No. 1—1874.

	RECOVERED.		IMPROVED.		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	3	2	....	....	1	2
Mania, sub-acute.....	....	....	....	1	....	....
Melancholia, acute.....	1	....	....	2	....	....
Melancholia, with stupor.	1	....	....	....	....	....
Dementia, senilis.....	....	....	....	....	1	....

TABLE No. 2—1875.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	9	8	1	2	..	1	2	1
Mania, sub-acute.....	..	2	..	2	2	..	..	..
Melancholia, acute.....	5	4	2	..	..	..	2	1
Melancholia, with stupor....	1	..	1	1	..	..	..	1
Melancholia, chronic.....	..	1	1	5	1	3	..	..
Dementia, secondary.....	..	..	..	..	2	2	..	..
Dementia, senilis.....	..	..	..	..	..	..	1	..
General paresis.....	..	..	..	..	1	..	1	..
Epilepsy, with mania.....	..	..	..	..	3	..	2	..

TABLE No. 3 — 1876.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	18	7	..	..	..	..	1	2
Mania, sub-acute.....	3	2	4	..	2	4	..	1
Mania, chronic.....	..	..	1	1	5	9	..	..
Melancholia, acute.....	4	11	..	2	..	1	3	5
Melancholia, with stupor....	1	..	1	..	..	..	..	..
Melancholia, chronic.....	..	..	..	1	3	4	..	..
Dementia, secondary.....	..	..	..	..	2	5	..	..
General paresis.....	..	..	..	..	..	..	2	..
Epilepsy, with mania .....	..	..	1	..	1	1	..	..

TABLE No. 4 — 1877.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	9	15	4	3	..	..	..	3
Mania, sub-acute.....	2	2	..	..	..	2	..	1
Mania, chronic.....	..	..	2	2	4	3	..	..
Melancholia, acute.....	9	8	2	3	..	..	1	2
Melancholia, with stupor....	..	..	..	1	..	..	..	..
Melancholia, chronic.....	..	..	..	2	1	2	1	1
Dementia, primary.....	1	..	..	..	..	..	..	..
Dementia, secondary.....	..	..	..	..	1	1	..	..
Dementia, senilis .....	..	..	..	..	..	2	..	2
General paresis.....	..	..	1	..	1	..	3	..
Epilepsy, with mania.....	..	..	1	..	..	1	..	..

TABLE No. 5 — 1878.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	4	15	..	1	..	1	..	2
Mania, sub-acute.....	5	5	..	..	1	..	..	..
Mania, chronic.....	1	1	..	2	6	7	1	..
Melancholia, acute.....	15	14	3	..	1	3	..	2
Melancholia, chronic.....	..	..	1	4	1	5	..	..
Dementia, primary.....	1	..	..	..	..	..	..	..
Dementia, secondary.....	..	..	1	1	4	3	1	..
Dementia, senilis.....	..	..	..	1	2	3	3	..
General paresis.....	..	..	1	..	2	..	6	..
Epilepsy, with mania.....	..	..	1	..	..	1	..	..
Epilepsy, with dementia.....	..	..	..	..	1	2	..	..

TABLE No. 6 — 1879.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	5	12	..	2	..	3	..	1
Mania, sub-acute.....	6	6	1	3	..	..	..	..
Mania, chronic.....	..	..	4	1	5	6	..	1
Melancholia, acute.....	7	9	4	..	..	2	3	..
Melancholia, with stupor.....	..	1	..	..	1	..	..	..
Melancholia, chronic.....	..	..	..	2	1	2	..	..
Dementia, primary.....	2	..	..	..	..	1	..	..
Dementia, secondary.....	..	..	2	..	4	6	1	..
Dementia, senilis.....	..	..	1	..	1	..	1	..
General paresis.....	..	..	..	..	..	..	7	..
Epilepsy, with mania.....	..	..	..	..	1	1	..	..
Epilepsy, with dementia.....	..	..	..	..	..	1	..	1

TABLE No. 7—1880.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	16	9	1	..	1	..	..	1
Mania, acute delirious.....	..	..	..	..	..	..	1	..
Mania, sub-acute.....	12	4	..	3	..	..	..	..
Mania, chronic.....	..	..	3	3	5	3	1	1
Melancholia, acute.....	5	11	1	1	..	1	..	..
Melancholia, with stupor....	..	2	..	..	..	..	..	..
Melancholia, chronic.....	1	..	2	2	1	3	..	2
Dementia, primary.....	..	1	..	..	..	..	..	..
Dementia, secondary.....	..	..	2	3	6	4	2	..
Dementia, senilis.....	..	..	3	..	3	1	1	1
General paresis.....	..	..	..	..	4	..	2	..
Epilepsy, with dementia.....	..	..	..	..	..	1	..	1

TABLE No. 8—1881.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	14	11	..	1	..	..	..	..
Mania, sub-acute.....	5	7	1	..	1	4	..	..
Mania, chronic.....	..	..	..	2	1	1	..	2
Melancholia, acute.....	8	11	2	1	..	1	..	..
Melancholia, with stupor....	1	1	..	..	1	1	..	..
Melancholia, chronic.....	..	..	3	1	3	5	..	..
Dementia, primary.....	2	..	..	..	..	..	..	..
Dementia, secondary.....	..	..	2	1	5	5	2	1
Dementia, senilis.....	..	..	2	1	1	1	6	1
General paresis.....	..	..	1	..	..	..	3	..
Epilepsy, with mania	1	..	..	..	..	..	..	..

TABLE No. 9 — 1882.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	3	9	..	2	..	3	1	2
Mania, acute delirious.....	..	..	..	..	..	..	2	1
Mania, sub-acute.....	11	12	2	2	4	3	1	..
Mania, chronic.....	..	..	..	..	6	2	1	..
Melancholia, acute.....	13	8	1	..	1	3	..	1
Melancholia, with stupor....	1	4	..	1	..	1	..	..
Melancholia, chronic.....	..	..	1	2	2	4	1	1
Dementia, primary.....	8	..	..	..	..	..	..	..
Dementia, secondary.....	..	..	..	..	5	8	1	1
Dementia, senilis... ..	..	..	..	..	1	1	2	..
General paresis.....	..	..	1	..	1	..	4	..
Epilepsy, with mania.....	..	..	..	..	1	..	..	..
Epilepsy, with dementia.....	..	..	1	..	1	..	..	..
Opium habit.....	..	..	..	..	..	1	..	..
Not insane (Phthisis Pulmonalis Catarrhalis chronica).	..	..	..	..	..	..	..	1

TABLE No. 10 — 1883.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	15	9	1	..	2	..	1	1
Mania, acute delirious.....	..	..	..	..	..	..	..	1
Mania, sub-acute.....	7	5	1	4	1	1	..	1
Mania, chronic.....	..	..	2	4	3	7	1	..
Melancholia, acute.....	16	11	..	5	1	1	2	1
Melancholia, with stupor....	..	1	1	..	..	1	..	..
Melancholia, chronic.....	1	..	1	1	2	..	..	1
Dementia, primary.....	1	1	..	..	..	..	..	..
Dementia, secondary.....	..	..	2	3	3	8	2	..
Dementia, senilis.....	..	..	1	1	2	..	2	..
General paresis. ....	..	..	..	1	1	..	4	..
Epilepsy, with mania.....	..	..	..	..	..	..	..	1
Epilepsy, with dementia.....	..	..	..	..	..	1	..	..
Opium habit.....	1	1	..	..	..	..	..	..

TABLE No. 11 — 1884.

	RECOVERED.		IMPROVED.		UNIMPROV'D		DEAD.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Mania, acute.....	13	6	..	..	..	..	..	..
Mania, acute delirious.....	..	..	..	..	..	..	3	1
Mania, sub-acute.....	7	2	2	..	..	..	..	..
Mania, chronic.....	..	..	3	..	6	4	2	..
Melancholia, acute.....	10	20	1	3	..	..	..	..
Melancholia, with stupor....	2	..	..	..	1	..	..	1
Melancholia, chronic.....	..	..	..	..	2	1	..	..
Dementia, primary.....	6	2	..	..	..	..	..	..
Dementia, secondary.....	..	..	1	2	5	6	1	2
Dementia, senilis.....	..	..	1	..	2	3	2	2
General paresis.....	..	..	1	..	3	..	6	..
Epilepsy, with mania.....	..	..	..	..	..	..	..	1
Epilepsy, with dementia.....	..	..	..	..	4	..	..	..

TABLE No. 12.

General statement of the operations of the State Homœopathic Asylum for the Insane from May, 1874, to September 30, 1884.

YEAR.	Number admitted.	Number discharged.	Number treated.	Discharged recovered.	Discharged improved.	Discharged unimproved.	Discharged dead.	Discharged eloped.	Not insane.
1874.....	69	14	69	7	3	..	4	..	..
1875.....	99	72	154	30	15	15	11	..	1
1876.....	113	110	195	46	11	37	14	2	..
1877.....	143	100	228	46	21	18	14	..	1
1878.....	156	138	284	61	16	43	15	2	1
1879.....	137	119	283	48	20	35	15	1	..
1880.....	147	131	311	61	24	33	13	..	..
1881.....	160	124	340	61	18	30	15	..	..
1882.....	175	151	391	69	13	48	20	..	1
1883.....	170	150	410	69	28	34	18	1	..
1884.....	163	141	423	68	14	37	21	1	..

TABLE No. 13.

General statistics of Asylum from its opening to September 30, 1884.

Total number discharged recovered.....	566
Total number discharged improved.....	183
Total number discharged unimproved.....	330
Total number discharged dead.....	160
Total number discharged eloped.....	7
Not insane.....	4

APPENDIX.

This asylum receives patients under the same rules and terms of admission as govern the other State asylums, viz.:

Pauper patients, under an order from the county superintendent of the poor of any county in the State, or the overseer of the poor of any town to which such insane person may be chargeable, at a weekly charge to the county or town of \$4.

Indigent persons, not paupers (in cases where insanity has not been over one year's standing), on the order of a county judge. This class of patients generally supply their own clothing and defray their own traveling expenses to and from the asylum as well as any extra charge for breakages, damages, etc. The county or town from which they come is charged for their treatment at same rates as for pauper patients.

"When an insane person in indigent circumstances, not a pauper, shall have been sent to any State asylum by his friends, who have paid his bills therein for six months, if the superintendent shall certify that he is a fit patient, and likely to be benefited by remaining in the institution, the supervisors of the county of his residence are authorized and required, upon an application under oath in his behalf, to raise a sum of money sufficient to defray the expenses of his remaining there another year, and to pay the same to the treasurer of the asylum. And they shall repeat the same for one year more upon like application, and the production of a new certificate of like import from the superintendent of such asylum." (Title 1, art. 1, § 15, chap. 446, Laws of 1874.)

Patients supported by their friends are received without other papers than certificates from county or bank officers, or other prominent individuals, as to the ability of those who become bound for their support in the asylum to meet all expenses incurred. *This class of patients must not be sent until arrangements have previously been made.*

All the above-named classes are subject to the provision of the act concerning insane persons (title 1, art. 1, § 1), which is that "no person shall be committed to or confined as a patient in any asylum, public or private, or in any institution, home or retreat for the care and treatment of insane, except upon the *certificate of two physicians*, under oath, setting forth the insanity of such person."

And according to section 2 of the same act, "it shall not be lawful for any physician to certify to the insanity of any person for the purpose of securing his commitment to an asylum, unless such physician be of reputable character, a graduate of some incorporated medical college, a permanent resident of the State, and shall have been in the actual practice of his profession for at least three years, and *such qualifications shall be certified to by a judge of any court of record*. No certificate of insanity shall be made except after a personal examination of the party alleged to be insane, and according to forms prescribed by the State Commissioner in Lunacy, and every such certificate shall bear date of not more than ten days prior to such commitment."

Every such certificate of insanity, in every case, must have indorsed upon it the approval of a judge or justice of a court of record of the county or district in which the alleged lunatic resides; and said judge or justice may institute inquiry and proofs as to any alleged lunacy before approving or disapproving of such certificate, and may, at his discretion, call a jury in each case to determine the question of lunacy.

DIRECTIONS AS TO COUNTY PATIENTS.

Bills are made out and transmitted to county treasurers quarterly, on the first days of March, June, September and December, by the treasurer of the asylum.

The attention of town and county officers is particularly called to the provisions of the law requiring their patients to be brought to the asylum comfortably clothed and provided with proper changes of clothing free from vermin, and in a state of bodily cleanliness; *and they should never be brought from county houses or localities which are infected with small-pox, measles or scarlet fever*.

Two suits of clothing for winter and two for summer, together with several changes of underclothing, should be provided for each patient. Every patient should be brought by some one competent to give a history of the case so far as known. This is a matter too much neglected in the case of county patients.

DIRECTIONS AND INFORMATION IN CASES OF PRIVATE PATIENTS.

1. Give the name in full of the patient, with place of residence as follows:

Name _____, town _____, county _____.

2. Give the name in full of the person who is to be written to about the patient whenever the superintendent thinks it necessary to write, with his residence and post-office address.

Name _____, post-office _____, county _____.

3. Give the name in full of the person who is to pay the patient's bill, and his residence and post-office address.

Name _____, post-office _____, county _____.

4. Whenever there is any change in the correspondents, the superintendent must be informed immediately, and the name in full of new correspondents must be sent him, with their residence and post-office address.

5. The price of board and ordinary personal and medical care is to be arranged by correspondence or interview. Suitable clothing (when not furnished by friends as required of them) is to be paid for in addition, and all destruction and damage of furniture and injury to buildings are to be paid for, and reasonable charges of pursuit in case of escape of patient, and general charges in case of death. If the patient, by reason of sickness, violence or other cause, requires more than ordinary care, an extra charge will be made in the discretion of the superintendent.

6. The amounts against the patient are to be paid to the treasurer of the asylum quarterly, on the first days of March, June, September and December, and whenever the patient is removed. If not paid promptly interest will be added, and unless accounts are paid soon after becoming due the patient will not be permitted to remain in the asylum.

7. If any material change takes place in the condition of the patient, the superintendent will write to the correspondent above named, but not otherwise, unless a letter of inquiry is first addressed to him. All letters will be answered promptly, and the superintendent will always write when the condition of the patient is such as to cause increased anxiety.

8. Letters respecting the patient personally and respecting the charges made in the account are to be addressed to Dr. Selden H. Talcott, State Homœopathic Asylum for the Insane, Middletown, Orange county, New York.

9. All payments on account of patients are to be made to Uzal T. Hayes, treasurer, at the asylum, and all letters respecting payments are to be addressed to him or the superintendent. The board of private patients is to be paid quarterly in advance. When friends visit the asylum with a patient, or to remove one, they may (if more convenient) pay money to the steward for the treasurer.

10. It is very desirable that as full a history of each case as can be obtained should be furnished when the patient is brought to the asylum.

Parties accompanying a patient to the asylum are often wearied with the journey; their attention is naturally diverted, and in attempting to give a history of their friend's illness many important points are not mentioned. To obviate this, and to avoid unnecessary detention, the following questions have been prepared. It is requested that some member of the family should assist the attending physician in giving a full and complete answer to each question. All facts thus given will be regarded as professional communications.

The name and address of one correspondent in each case is registered, while all letters of inquiry from this correspondent will receive

a prompt reply ; severe illness or the occurrence of any thing of moment will be immediately communicated. When funds are previously provided, the telegraph will be used, if necessary ; stamps must be inclosed to pre-pay replies.

Name, residence, town, county, age, place of birth ?

Whether single, married or widowed ?

Number of children ?

If any, age of youngest ?

Present residence ?

Occupation of self, father or husband ?

What has been the previous success in business ?

Education (collegiate, academic or common school, read or write) or none ?

Of what religious belief or denomination ?

Have any relatives, either upon father or mother's side, been insane, hysterical, nervous, or had convulsions ?

Has either parent been intemperate or addicted to the use of opium or tobacco to excess, or to other excesses ?

What parent does the patient resemble physically, and which mentally ?

Were either parents or grand-parents blood relations ?

What was the patient's natural temperament ?

What were the patient's natural tastes ?

Was there any peculiarity or eccentricity of speech, manner or voice ?

Was the patient ever addicted to the intemperate use of intoxicating drinks, opium or tobacco ?

Has the patient been addicted to masturbation or sexual excesses ; if so, for how long ?

Has there been a previous attack of insanity ; if so, give particulars ?

Has the patient ever had any severe injury of the head ; and if so, what, and age and time ?

Has the patient usually menstruated regularly ; and if not, what has been the nature of the irregularity ?

State the date of the first indication of any change in the patient's usual condition or habits, temper or disposition ; what was the change ?

What was the patient's physical condition previous to, or at the time of the attack ?

Give the subsequent history of the attack, and the treatment employed ?

Has the patient any permanent delusion, and of what nature ?

Has the patient ever attempted to injure others ; if so, when and how ?

Was it apparently done from premeditation or sudden passion ?

Does the propensity to suicide exist ?

Has the patient ever made a suicidal attempt ; if so, in what manner ?

Has the patient a disposition to destroy clothing, furniture, etc.?

State the supposed cause or causes of the attack; also any facts that will throw light upon the cause?

Has any restraint or confinement been resorted to; if so, what kind, and how long?

Has the patient ever been in an asylum; if so, in what asylum and for how long; also condition when discharged?

What medication, homœopathic or otherwise, has the patient received, and for how long?

Is the patient now in usual health, or more emaciated and feeble than ordinary?

What is the condition of the pulse; fast or slow, feeble or full?

What is the condition of respiration; number per minute; easy or labored?

What is the condition of pupils; equally or unequally dilated, painfully affected by light?

What is the condition of the voice; is it natural, or is there any hesitancy or stammering while speaking?

What is the condition of the appetite; is it greater or less than usual? State any unnatural cravings?

What is the condition of the digestion; if bad, what are the symptoms?

What food causes most distress, and when or how is it aggravated or relieved, and is the trouble of long standing?

What is the condition of the hearing?

What is the condition of the sight?

Is the patient troubled about sleeping; if so, what part of the night?

Is there any evidence of paralysis, or loss of motion or sensation; if so, what part of the body is affected?

Is the patient excited or quiet?

Is the patient moody or irritable?

What is the character of delusions?

Give example of those most commonly present?

How is the patient occupied during the day? By what means are symptoms (physical or mental) aggravated or ameliorated?

FORM OF MEDICAL CERTIFICATE.

[According to the forms prescribed by the State Commissioner in Lunacy under title 1, section 2 of chapter 446 of the Laws of 1874.]

STATE OF NEW YORK,)
County of , } ss.:

I, , a resident of , in the county aforesaid, being a graduate of , and having practiced as a physician for years, hereby certify, under oath, that on the day of I personally examined of , and that the said is insane, and a proper person for care and treatment under the provisions of chapter 446 of Laws of 1874.

I further certify that I have formed this opinion upon the following grounds, viz.:

And I further declare that my qualifications as a medical examiner in lunacy have been duly attested and certified by .

Sworn to and subscribed before me }
this day of , 18 . }

JUDGE'S CERTIFICATE OF QUALIFICATION.

STATE OF NEW YORK, } ss.:
County of , }

I hereby certify that , of , is personally known to me as a reputable physician, and is possessed of the qualifications required by chapter 446 of the Laws of 1874.

Each certificate must be indorsed by the judge as follows:

"I hereby approve the within certificate.

"

, Judge.

"Dated the day of , 18 ."

FORM OF AN ORDER FOR THE ADMISSION OF A PATIENT AT COUNTY EXPENSE.

To the Superintendent of the State Homœopathic Asylum at Middletown, N. Y.:

WHEREAS, , a person who is chargeable for support to the county of , has become a lunatic, the undersigned, , superintendent of the poor of said county, having called in and , two reputable physicians, duly qualified as medical examiners under chapter 446, Laws of 1874, and having their certificate, under oath, of the insanity of said , do hereby order to be taken to said asylum, and you, the superintendent, are required to receive into said asylum, and there detain and maintain at the expense of said county until legally discharged therefrom.

Given under hand this day of , 18 .

Superintendent of Poor,

County.

ORDER OF COUNTY JUDGE.

In the matter of an alleged indigent }
lunatic. }

COUNTY OF , ss.:

WHEREAS, An application has been made to me, , county judge of the county of , in behalf of , who resides in the town of , in said county, for a certificate entitling him to admission into the State Homœopathic Asylum

for the Insane, at Middletown, as a person in indigent circumstances, not a pauper, and I, the said judge, having given reasonable notice of the time and place of hearing to _____, superintendent of the poor of the county of _____, which county is chargeable with the expense of supporting said person in the asylum; and having called two reputable physicians, and other creditable witnesses, and fully investigated the facts of the case, do hereby certify that satisfactory proof has been adduced to me showing the said _____ to be insane, and that he became insane within one year next prior to the date hereof, and that his estate is insufficient to support himself under the visitation of insanity.

Given under my hand this _____ day of _____, 18 ____.

County Judge of the County of _____.

COUNTY OF _____, ss. :

_____, clerk of the said county, certify that _____, whose name is subscribed to the within certificate, was at the date thereof the county judge of the said county; that I am acquainted with the handwriting of said judge, and that his signature to the said certificate is genuine.

Witness my hand, and the seal of the county court of said county, this _____ day of _____, 18 ____.

[L. s.]

EXTRACTS FROM LAWS OF 1874.

“County judges and superintendents of the poor in any of the counties of this State, and all county or other officers having authority to commit insane persons to any of the State lunatic asylums of this State, are hereby authorized to commit indigent and pauper insane persons, for whom Homœopathic treatment may be desired, to the State Homœopathic Asylum for the Insane, at Middletown, in the same manner and on the same terms and conditions as are now required or may hereafter be required by law, for the commitment of indigent or pauper insane persons to any of the other State lunatic asylums in this State, provided the number in the aggregate of such patients shall not exceed the accommodations at the disposal of the superintendent in said asylum.” (Chapter 414, Laws of 1874, § 1.)

PRIVATE PATIENTS.

Form of agreement entered into by the person or sureties who become bound for the patient admitted.

(This agreement or understanding is generally signed by near relatives, or legal guardians, if any such there be, at or prior to the time of admission of a patient; or subsequently upon the deposit of a sum of money sufficient to secure its execution.)

WHEREAS, _____, of _____, in the county of _____, an insane person, has been admitted as a patient into the State Homœopathic Asylum for the Insane, at Middletown, Orange county, New York:

Now, therefore, we, the undersigned, in consideration thereof, jointly and severally bind ourselves to Uzal T. Hayes, treasurer of the said asylum, to pay to him and his successors in office the sum of _____ dollars and _____ cents per week for the care and board of said insane persons so long as _____ shall continue in said asylum, with such extra charges as may be occasioned by _____ requiring more than ordinary care and attention; and also to provide _____ with suitable clothing, and to pay for all such necessary articles of clothing as shall be procured for _____ by the steward of the asylum; and to remove from the asylum whenever the room occupied by _____ shall be required for a class of patients having preference by law; or whenever _____ shall be required to be removed by the trustees or superintendent, in sending said patient to friends, in case one or either of us shall fail to remove said patient when required to do as aforesaid; and if _____ shall be removed at the request of friends before the expiration of six calendar months after reception, then to pay board for twenty-six weeks, unless _____ shall be sooner cured; and also to pay not exceeding \$50 for all damages _____ may do the furniture or other property of said asylum, and for reasonable charges in case of elopement and funeral charges, in case of death. Such payments for board and clothing to be made quarterly, on the first days of March, June, September and December in each year; and the time of removal, with interest on each bill from and after the time it became due.

In witness whereof we have hereunto set our names this day of _____, in the year _____.

Name,

Post-office address:

Name,

Post office address:

This will certify that I am personally acquainted with _____ and _____, the signers of the above bond, and consider each of them fully responsible for the prompt discharge of its obligations.

Name,

Post-office address:

GENERAL DIRECTIONS AS TO PATIENTS.

All patients require at least two suits of clothing and several changes of under-garments. Most of the patients go out regularly and consequently need clothes suited to the season. For males, great coats and boots are required in winter; shoes answer in summer; slippers are worn in the house. Females also need suitable clothing for all seasons.

The supply should be liberal when it can be afforded. All cloth-

ing is marked with the name of the patient to whom it belongs, and much pains will be taken to have it kept in good order and repair.

The removal of a patient should never be attempted while he is laboring under severe bodily disease. dangerous wounds or sores, consumption, etc.

In this connection we cannot give better advice to the friends of patients than by quoting the following words by Dr. Gray of the Utica Asylum:

“In conveying a patient to the asylum let it be done by force rather than by deception. Truth should not be compromised by planning a journey to the country, or a visit to the asylum, and when there suggesting the idea to the patient of staying, while his admission was already decided upon; nor should patients be induced to come and stay a few days to see how they like it, under the impression that they can leave at pleasure. Such treachery not only destroys confidence in friends, but also, too often, in us, by the seeming conspiracy to which we are supposed to be a party — than which there can scarcely be a greater barrier to improvement.”

Application for admission should always be made before the patient is brought to the asylum, in reply to which any information will be cheerfully and heartily given. All correspondence with or about patients should be addressed to Dr. Selden H. Talcott, superintendent, State Homœopathic Asylum for the Insane, Middletown, Orange county, N. Y.

Persons having charge of insane friends are often so much prejudiced against asylums that they hesitate to give these unfortunate patients the benefit of care and treatment in such institutions. A visit to an asylum and an examination of its operations and modes of life will generally disabuse a candid mind of false impressions, and will bring conviction as to the absolute necessity for removing cases of insanity from home. Visitors to this asylum in search of information will be cordially welcomed, and its operations fully explained to them.

TERMS.

County patients (paupers and indigents) are received at \$4 per week. Private patients are charged from \$5 to \$25 per week, according to quarters selected by their friends. Those sleeping in dormitories with four to eight beds pay \$5 to \$6 per week; those occupying a room with one or more beds are charged from \$7 to \$25 per week, according to location and size of room and the degree of elegance required in furnishing. Friends of private patients are required to pay quarterly in advance, unless other terms are previously agreed upon. Special arrangements may be made by personal application to the superintendent or by letter.

Address,

DR. SELDEN H. TALCOTT,

Superintendent,

Middletown, Orange County, N. Y.

TENTH ANNUAL REPORT

OF THE

Central New York Institution for Deaf-Mutes,

AT ROME, N. Y.

For the Year ending September 30, 1884.



TRANSMITTED TO THE LEGISLATURE JANUARY 14, 1885.

ALBANY, N. Y.:
WEED, PARSONS & COMPANY, PRINTERS.
1885.

OFFICERS AND TRUSTEES.

President.

B. J. BEACH.

Vice-Presidents.

Dr. W. J. P. KINGSLEY ; REV. THOS. GALLAUDET, D. D.

Secretary and Treasurer.

JOHN G. BISSELL.

First class—Term expires February, 1885.

- | | |
|---------------------|----------------------|
| 1. A. C. KESISNGER, | 3. JOHN G. BISSELL, |
| 2. D. P. McHARG, | 4. EDWARD COMSTOCK, |
| | 5. JAMES H. SEARLES. |

Second class—Term expires February, 1886.

- | | |
|----------------------|--------------------|
| 1. B. J. BEACH, | 3. E. L. STEVENS, |
| 2. W. R. HUNTINGTON, | 4. W. W. WARDWELL, |
| | 5. G. H. LYNCH. |

Third class—Term expires February, 1887.

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|---------------------------|--------------------------------|
| 1. Dr. W. J. P. KINGSLEY, | 3. Rev. THOS. GALLAUDET, D. D. |
| 2. J. D. ELY, | 4. THOMAS H. STRYKER, |
| | 5. ALFRED ETHRIDGE. |

Executive Committee.

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|-------------------------------------|---------------------|
| 1. B. J. BEACH, <i>ex-officio</i> , | 3. D. P. McHARG, |
| 2. JOHN G. BISSELL, | 4. ALFRED ETHRIDGE, |
| | 5. EDWARD COMSTOCK. |

Building Committee.

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|---------------------|-----------------------|
| 1. EDWARD COMSTOCK, | 3. D. P. McHARG, |
| 2. ALFRED ETHRIDGE, | 4. B. J. BEACH, |
| | 5. THOMAS H. STRYKER. |

LIST OF LIFE MEMBERS.

A. K. Adams,	B. N. Huntington,*	A. S. Roberts,
Sanford Adams,*	W. R. Huntington,	Ira L. Reed,
Sanford Adams, Jr.,	Daniel Huntington,	G. V. Selden,
James Aiken,	J. B. Jervis,	J. H. Searles,
E. B. Armstrong,*	G. W. Jones,	R. R. Searles,
George Barnard,	H. R. Jones,	J. C. Smith,
J. B. Barton,*	J. R. Juliand,	M. W. Smith,*
B. J. Beach,	John Kelley,	Wm. N. Smith,
F. B. Beers,	A. C. Kessinger,	S. S. T. Smith,
G. N. Bissell,	C. F. Keith,*	W. W. Smith,*
John G. Bissell,	W. J. P. Kingsley,	E. L. Stevens,
E. F. Brown,	W. L. Kingsley,	James Stevens,
Calvert Comstock,*	G. L. Kingsley,	S. B. Stevens,*
Edward Comstock,	H. M. Lawton,	H. L. Stillman,
I. Denio,	R. E. Lee,*	Rev. Peter Stryker,
J. Dyett,	D. F. Livermore,	John Stryker,
J. D. Ely,	J. C. Longland,	Thos. H. Stryker,
James Elwell,	G. H. Lynch,	A. Sandford,
C. W. Elmer,	D. P. McHarg,	R. W. Thomas,
A. Ethridge,	George Merrill,	F. H. Thomas,
F. A. Ethridge,	I. T. Miner,*	J. Townsend,
Henry A. Foster,	P. H. Miner,	A. P. Tuller,
T. M. Flandrau,	H. W. Mitchell,	David Utley,*
John Groves,	J. L. Mudge,	S. G. Visscher,
James Hagerty,	N. Mudge,	Samuel Wardwell,
George Hahn,*	M. McDonough,*	Wm. Wardwell,
George Hammill,	J. S. Mowry,	John S. Wardwell,
H. Hannahs,	John B. Morrow,	M. C. West,
J. S. Haselton,	E. B. Nelson,	B. W. Williams,
Z. Hill,*	T. G. Nock,	B. H. Wright,
J. S. Hovey,	J. M. Orton,	J. Walker,*
Edward Huntington,*	D. B. Prince,	H. K. White.

* Deceased.

EDUCATIONAL DEPARTMENT.

Principal.

EDWARD BEVERLY NELSON, B. A.

Professors and Teachers.

- | | |
|------------------------|----------------------------|
| 1. FORT LEWIS SELINEY, | 6. J. EDWIN STORY, |
| 2. WM. M. CHAMBERLAIN, | 7. THOMAS H. JEWELL, |
| 3. ALBERT P. KNIGHT, | 8. CORNELIA RUSS, |
| 4. JONATHAN H. EDDY, | 9. MRS. J. D. BERRY, |
| 5. LEWIS N. BENEDICT, | 10. PRUDENCE E. BURCHARD.* |

DOMESTIC DEPARTMENT.

Attending Physician.

THOMAS M. FLANDRAU, M. D.

Steward.

EDWARD B. NELSON.

Supervisors.

EDWARD P. JOHNSON,	ADELBERT DAWLEY,
ELLA J. RANDALL.	

Matron.

MRS. MARY ADELLA GRIFFIN.

Assistant Matrons.

MRS. ESTHER H. FLINT,	MRS. SEYMOUR MOORE,
MRS. ISADORE RICH.	

Sewing Matron.

MISS CYNTHIA M. HUBBARD.

Housekeepers.

Miss JENNIE EAGLAND,	Miss NELLIE SCOTT.
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Nurse.

MRS. BARBARA TYLER.

Caretaker.

Miss MARY FULLAM.

Seamstress.

Miss MARY E. JONES.

Engineer.

J. M. COTTMAN.

Watchman.

MICHAEL J. SHORTALL.

*Teacher of Articulation.

STATE OF NEW YORK.

No. 17.

IN ASSEMBLY,

JANUARY 14, 1885.

TENTH ANNUAL REPORT

OF THE CENTRAL NEW YORK INSTITUTION FOR DEAF-MUTES.

STATE OF NEW YORK :

DEPARTMENT OF PUBLIC INSTRUCTION,
SUPERINTENDENT'S OFFICE, ALBANY, *January 13, 1885.* }

Hon. GEORGE Z. ERWIN, *Speaker of the Assembly :*

SIR—I have the honor to transmit herewith the Tenth Annual Report of the Central New York Institution for Deaf-Mutes.

. Very respectfully yours,

W. B. RUGGLES,

State Superintendent.



REPORT.

The trustees of the Central New York Institution for Deaf-Mutes respectfully present to the Legislature their tenth annual report, being for the year ending September 30, 1884.

The whole number of pupils connected with the institution September 30, 1884, was one hundred and forty-eight, ninety-eight boys and fifty-eight girls.

The whole number within the school, at any time during the year, was one hundred and sixty-six, and of this whole number one hundred and twenty-eight were supported by the State, thirty-eight by counties; further details are furnished by the report of the superintendent accompanying this report.

The physician's report, hereto annexed, shows the sanitary condition of the school to have been very satisfactory during the year.

The treasurer's report, also hereto annexed, shows the total receipts during the year from all sources to have been \$60,188.59; the expenditures \$60,128.42; cash balance on hand September 30, 1884, \$60.17. The total indebtedness of the institution September 30, 1883, was \$20,741.25, or deducting cash then on hand, it was \$19,168.43. At the date of this report the indebtedness is \$16,400, or deducting cash on hand, \$16,339.83. A net reduction of indebtedness during the year of \$2,828.60.

Of the whole indebtedness \$16,000 is in a mortgage on the real estate to the Rome Savings Bank at five per cent interest. The remainder is a temporary loan at the bank where the account of the treasurer is kept.

Reference is respectfully made to the several reports above referred to for further details of information.

Respectfully submitted,

BLOOMFIELD J. BEACH,

President of the Board of Trustees.

October 1, 1884.

[Assem. Doc. No. 17.]

REPORT OF THE TREASURER.

RECEIPTS.

Cash on hand October 1, 1883.....	\$1, 572 82
From the State of New York.....	28, 590 96
From borrowed money.....	16, 400 00
From pupils for clothing.....	104 36
From sales of sundry articles.....	77 60
From the following counties :	
Oneida.....	3, 022 69
Onondaga.....	2, 578 88
Saratoga.....	1, 374 14
Oswego.....	1, 171 60
Otsego.....	1, 103 59
Chemung.....	732 61
Fulton.....	652 94
St. Lawrence.....	637 28
Lewis.....	393 44
Herkimer.....	349 93
Montgomery.....	323 31
Madison.....	296 34
Chautauqua.....	208 00
Jefferson.....	142 77
Albany.....	74 46
Orleans.....	60 00
Broome.....	57 30
Rensselaer.....	54 70
Wayne.....	40 67
Wyoming.....	30 00
Yates.....	30 00
Dutchess.....	28 72
Westchester.....	22 24
Chenango.....	19 09
Monroe.....	14 51
Cayuga.....	13 29
Warren.....	8 49
Washington.....	1 86

\$60, 188 59

EXPENDITURES.

Groceries and Provisions.

Apples, 21 barrels.....	\$51 06
Apples, dried, 290 pounds.....	30 20
Baking powder, 225 pounds.....	70 60
Beans.....	79 10
Beef, 17,616 $\frac{3}{4}$ pounds.....	2, 200 08
Berries.....	12 54
Bread, 17,009 loaves.....	1, 190 63
Buckwheat, 50 pounds.....	2 12
Buns, rolls, etc., 8,096.....	57 98
Butter, 3,864 pounds.....	1, 049 69
Catsup and pickles.....	26 26
Cheese, 198 $\frac{1}{4}$ pounds.....	31 05
Chocolate, 108 pounds.....	42 72
Cider, 1 barrel.....	5 00
Cinnamon, 7 pounds.....	3 15
Cocoanut, 60 pounds.....	17 40
Coffee, 200 pounds.....	49 00
Corn.....	36 35
Corn starch, 200 pounds.....	16 40
Crackers, 1,246 pounds.....	78 32
Cranberries, 3 $\frac{1}{2}$ bushels.....	17 50
Currants, 50 pounds.....	4 50
Eggs, 302 dozen.....	73 41
Fish, fresh and salt.....	320 60
Flour, 27 $\frac{1}{4}$ barrels.....	187 50
Flour, Graham, 225 pounds.....	7 50
Gelatine, 5 dozen.....	8 55
Ginger, 15 pounds.....	3 50
Grapes.....	8 37
Ham, 756 $\frac{1}{4}$ pounds.....	113 43
Hominy, 1 case.....	2 25
Ice.....	61 29
Lard, 1,329 pounds.....	155 88
Lemons, 50 dozen.....	14 55
Lemon extract, 4 pints.....	4 00
Maccaroni, 25 pounds.....	4 00
Meal, 920 pounds.....	18 40
Melons, 12.....	2 83
Milk, 53,178 quarts.....	1, 857 73
Miscellaneous vegetables.....	159 57
Mince meat.....	26 48
Molasses, 279 $\frac{1}{2}$ gallons.....	128 23
Mutton, 1,176 $\frac{1}{2}$ pounds.....	164 72
Nutmeg, 3 pounds.....	2 25
Oatmeal, 12 $\frac{5}{8}$ barrels.....	96 25
Oranges, 29 $\frac{1}{2}$ dozen.....	10 07

Oysters, 36 gallons.....	\$36 00
Peaches, 1 case.....	4 50
Pears, 1 dozen cans.....	2 00
Peas, 6 cases.....	18 00
Pepper, 24 pounds.....	8 15
Pineapples, 2 dozen cans.....	2 80
Potatoes, 654 $\frac{1}{8}$ bushels.....	275 51
Pork and sausage, 811 pounds.....	101 69
Poultry, 223 $\frac{1}{4}$ pounds.....	31 35
Prunes, 491 pounds.....	45 84
Raisins, 7 boxes.....	16 57
Rice, 467 pounds.....	33 99
Sardines, 1 dozen boxes.....	1 80
Salmon, 3 $\frac{1}{2}$ dozen cans.....	6 03
Salt, 20 sacks.....	9 15
Soda, 36 pounds.....	2 17
Strawberries, canned.....	3 00
Succotash, 3 cases.....	9 00
Sugar, 7,519 pounds.....	533 54
Tea, 164 pounds.....	67 14
Tapioca, 100 pounds.....	6 50
Tomatoes.....	30 65
Vanilla extract, 10 pints.....	10 10
Vinegar, 92 $\frac{1}{2}$ gallons.....	16 65

\$9,776 14

Furniture and Fixtures.

Axes, 6.....	\$6 00
Baskets, 4.....	4 50
Beeswax.....	55
Bedsteads, 25.....	262 50
Blankets, 32.....	73 50
Bowl.....	75
Brooms, 17 dozen.....	44 25
Brushes, 99.....	16 45
Carpets, paper and laying.....	93 71
Chairs, 19.....	44 50
Chambers, 6.....	2 50
Coal scuttles, 8.....	11 25
Comfortables.....	25 70
Cottons, 1,047 $\frac{7}{8}$ yards.....	187 29
Counter sink.....	30
Cutter shoes.....	3 00
Cutter fender.....	1 00
Cutter thills.....	4 00
Desk.....	6 00
Dishes.....	3 75

Ewer and basin	\$1 00
Faucets, 2	1 00
Forks, 2 sets	2 50
Glasses and mugs	9 78
Gong and bell pull	5 60
Gong	35
Jugs, 2	50
Kitchen ware	8 30
Knives, 28	6 60
Lactometer	60
Looking glasses, 10	9 00
Mops and mopping	15 85
Miscellaneous crockery	2 78
Needles	7 43
Oil cloth	15 25
Pans	7 55
Pails, 20	11 10
Pitchers, 8	4 05
Pins, 5 dozen packages	4 80
Plates	1 50
Rakes	1 50
Repairing chairs	4 20
Repairing clocks	3 40
Repairing harness	3 50
Repairing machines	5 47
Rope and twine	8 25
Scales, 1 set	100 00
Scissors, 3 pairs	2 25
Scythe stone	10
Shovels	7 50
Spoons	23 80
Spread	1 00
Steel	65
Stove fixings	81 82
Stove jobbing	13 48
Shades and hanging	22 80
Repairing mattresses	120 37
Table	1 00
Table linen	58 28
Thermometers, 12	2 00
Thimbles, 2 1-2 dozen	62
Toweling, 306 1-4 yards	35 28
Towels, 4 dozen	9 90
Umbrella	2 00
Washboards, 1 dozen	2 63
Wire	68
Yarn	6 25

\$1,425 77

Clothing.

Bandage, 51 yards.....	\$2 55
Boots and shoes, 214 pairs.....	417 30
Braid.....	1 92
Buttons, 164 7-12 dozen.....	14 46
Cambric, 250 1-2 yards.....	15 03
Canvas, 10 yards.....	1 68
Cashmere.....	90
Cheese cloth, 51 3-4 yards.....	2 45
Collars.....	2 60
Corsets, 13.....	6 50
Corset laces, 3 dozen.....	38
Cotton flannel, 120 3-4 yards.....	14 29
Drawers, 74 pairs.....	37 64
Dress goods, 336 1-2 yards.....	49 02
Dress shield.....	22
Drilling, 9 yards.....	1 13
Elastic.....	10 91
Flannel, 69 yards.....	17 15
Gingham, 552 3-4 yards.....	36 42
Handkerchiefs, 4 dozen.....	4 50
Hats and caps, 135.....	85 82
Hose, 333 pairs.....	102 49
Jean, 100 1-2 yards.....	10 55
Neckwear.....	10 87
Overcoats, 19.....	79 75
Pants, 3 pairs.....	8 50
Ribbon, 25 3-4 yards.....	6 69
Rubbers, 92 pairs.....	63 85
Ruching, 1 1-4 yards.....	63
Shawls, 5.....	17 75
Shirting and bosoms.....	13 87
Shirts, 43.....	34 05
Shoe strings, 20 gross.....	6 50
Shoe dressing, 1 bottle.....	25
Suits, 80.....	542 75
Tape, 2 dozen.....	1 45
Thread.....	43 26
Twilling, 52 1-2 yards.....	5 52
Waterproof.....	6 81
Wrappers, 1 dozen.....	4 00

\$1,682 41
Miscellaneous.

Advertising.....	\$3 00
Carting baggage.....	21 35
Carting potatoes.....	2 50
Chloride of lime, 65 pounds.....	5 20

Clipping horse.....	\$8 50
Cutting grass.....	24 00
Delegations to Albany.....	27 40
Delegations to Utica.....	4 75
Delegation to Mayville.....	18 97
Dentistry.....	5 75
Expenses returning pupils home.....	37 05
Expressage.....	3 40
Hack hire.....	4 00
Hay, 2,275 pounds.....	12 00
Legal services.....	26 85
Legislative Manual.....	1 11
Matches.....	1 30
Newspaper subscriptions.....	12 90
Oats, 92 bushels.....	43 50
Printing reports, circulars, etc.....	150 75
Potash, 6 pounds.....	60
Sapolio, $\frac{3}{4}$ gross.....	7 50
Soap.....	249 62
Starch, 195 pounds.....	11 51
Straw, 2,558 pounds.....	13 49
Subscription to American annals.....	50 00
Telegraphing and rent of telephones.....	67 39
Water-closet paper.....	43 08
Water rents.....	110 00
<hr/>	
\$967 47	
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Construction and Repair.

Acid, etc.....	\$0 18
Bolts, 8.....	42
Brackets.....	10 20
Carpentering.....	215 05
Conductors.....	21 70
Glass, 89 lights.....	13 90
Hitching-posts, 2.....	5 00
Hinges, 18.....	1 08
Latches, 8.....	2 95
Locks and keys.....	10 25
Masonry.....	10 13
Miscellaneous materials.....	1 74
Paint.....	5 53
Painting.....	483 41
Plumbing.....	186 30
Putty, 23 pounds.....	1 15
Sewerage work.....	395 12
Tinning, etc.....	30 48
Ventilators, 2.....	23 40
<hr/>	
\$1, 417 99	
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Stationery and Postage.

Balls and bats.....	\$5 30
Blank books, 565.....	24 68
Chessmen	60
Crayons, 2 cases.....	16 00
Envelopes, 6,500	14 00
Erasers, 36	3 75
Ink, 49 bottles	12 75
Mucilage, 2 bottles.....	90
Penholders	18
Pencils	14 15
Pen-racks, 2	50
Pens, 12 gross	10 55
Post-office box rent	3 75
Postage	63 25
Red tape.....	40
Rubber bands..	3 75
School books.....	101 21
Slates, 6 dozen.....	5 25
Sponges.....	3 33
Wrapping paper.....	6 00
Writing paper	35 00
	<hr/>
	\$325 30
	<hr/> <hr/>

Carpenter Shop.

Files, 6	\$0 92
Glue	5 10
Hasps and screws	5 26
Miscellaneous supplies	8 37
Miscellaneous tools	5 62
Nails	6 18
	<hr/>
	\$31 45
	<hr/> <hr/>

Fuel and Lights.

Coal, 440 $\frac{3}{4}$ tons.....	\$1,858 88
Lamps, 13.....	9 72
Lamp chimneys	20 40
Oil	140 50
Reflector	75
Wood, 12 $\frac{1}{4}$ cords	91 85
Wick, 4 rolls	3 40
	<hr/>
	\$2,125 50
	<hr/> <hr/>

Salaries and Wages.

Principal	\$3,000 00
Accountant	500 00
Professors and teachers.....	7,687 96
Matrons and assistants	2,073 46
Supervisors	1,200 00
Foreman of shops.....	236 67
Domestics generally	4,291 61
	<hr/>
	\$18,989 70
	<hr/> <hr/>

Medical.

Drugs and medicines.....	\$115 70
Medical attendance	293 00
	<hr/>
	\$408 70
	<hr/> <hr/>

Rent and Insurance.

Rents of buildings	\$851 25
Insurance premiums	185 00
	<hr/>
	\$1,036 25
	<hr/> <hr/>

Shoe Shop.

Leather and supplies.....	\$188 66
	<hr/> <hr/>

Interest and bank discounts	\$1,307 59
Paid W. H. Davies, builder.....	12,445 49
Repaid G. N. Bissell's loan	8,000 00
Cash on hand 30th September, 1884.....	60 17
	<hr/>
Total expenditures.....	\$60,188 59
	<hr/> <hr/>

Indebtedness.

To the Rome Savings Bank.....	\$16,000 00
To the First National Bank of Rome	400 00
	<hr/>
	\$16,400 00
	<hr/> <hr/>

STATE OF NEW YORK, }
County of Oneida, } ss. :

Bloomfield J. Beach, president, and John G. Bissell, treasurer of the Central New York Institution for Deaf-mutes, at Rome, New York, being severally and duly sworn, each for himself, deposes
[Assem. Doc. No. 17.] 3

and says: The first named that he is such president as aforesaid; the second named that he is such treasurer as aforesaid, and that the foregoing statement was made up under his supervision as treasurer of said institution, and both say that the foregoing statement of receipts and expenditures of said institution for the year ending September 30, 1884, is in all respects just and correct, according to the best knowledge and belief of said deponents.

BLOOMFIELD J. BEACH,
JOHN G. BISSELL.

Subscribed and sworn to before me, {
this 22d day of December, 1884. }

F. L. WAGER,

Notary Public.

REPORT OF THE PHYSICIAN.

To the Board of Trustees of the Central New York Institution for Deaf-Mutes :

GENTLEMEN — The physician respectfully presents to you his tenth annual report for the year ending September 30, 1884.

The sanitary condition of the institution for the past year has been very satisfactory. There has been, as usual, a considerable number of admissions to the hospital, but chiefly for unimportant ailments, such as slight attacks of indigestion with head-ache, and the mild forms of bronchitis, popularly known as coughs and colds. In but few instances did disease present itself in its graver aspects. According to an invariable rule, which has been very successful in its operation, whenever our pupils are even slightly unwell, they are put under the charge of the matron of the hospital, without waiting for the appearance of serious symptoms. The care and attention then given them usually cuts off the attack in its incipency, prevents complications, and restores the little patient speedily to health and his school-room.

As our inmates have become more accustomed to their new environment, to the changes in habit and modes of living which removal from home to a boarding-school involve, the number of the sick steadily diminishes. In the year 1882 the admissions to the hospital were 313. In 1883 there were 253, but in 1884 the number is reduced to 181. This is rather less than is strictly correct, as several girls were treated in their rooms while the hospital was devoted exclusively to scarlet fever. With this addition the actual number will not exceed 200.

Thus the reduction in our sick list in three years is over thirty-three per cent, while the number of pupils in the institution has remained about the same.

There were admitted to the hospital during the year—

Scholars, boys.....	109	
Scholars, girls.....	58	
	—	167
Employees, male.....	1	
Employees, female.....	13	
	—	14
		—
		181
		==

Of the scholars—

53 were admitted once.....	53 admissions
30 were admitted twice.....	60 admissions
8 were admitted three times.....	24 admissions
5 were admitted four times.....	20 admissions
2 were admitted five times.....	10 admissions

98

167

Of the employees—

11 were admitted once.....	11 admissions
1 was admitted three times.....	3 admissions

12

181

The scholars were, boys..... 65

The scholars were, girls..... 33

98

The employees were male..... 1

The employees were female..... 11

12

Total persons treated..... 110

The following named diseases are found upon my record :

Diseases of the Respiratory Organs.

Acute bronchitis..... 2

Sub-acute bronchitis..... 29

Croup, membranous..... 1

Croup, inflammatory..... 4

Asthma (in two pupils)..... 6

Nasal catarrh..... 1

43

Diseases of the Digestive Organs.

Fallicular tonsilitis..... 25

Quinsy..... 2

Chronic hypertrophy tonsils..... 3

Colic..... 1

Indigestion..... 4

Indigestion, with headache..... 17

Indigestion, with vomiting..... 6

Diarrhea..... 8

Dyspepsia..... 1

Toothache..... 3

70

Diseases of the Nervous System.

Epilepsy (one pupil)..... 2

Neuralgia..... 5

7

Fevers.

Typhoid fever.....	1	
Malarial fever.....	2	
Scarlet fever, simple.....	4	
Scarlet fever, anginose.....	1	
Diphtheria.....	1	
	<hr/>	9

Diseases of the Skin.

Ringworm (<i>Tenia circinatus</i>).....	2	
Eczema.....	2	
Erythema.....	3	
Herpes.....	1	
Boils.....	2	
Whitlow.....	1	
	<hr/>	11

Diseases of the Ear.

Impaction of wax.....	1	
Otitis.....	5	
Eczema of the meatus.....	2	
	<hr/>	8

Diseases of the Eye.

Conjunctivitis.....	4	
	<hr/>	4

Diseases of Females.

Amenorrhea.....	1	
	<hr/>	1

Other Diseases.

Rheumatism, articular.....	5	
Rheumatism, muscular.....	4	
Pleurodyne.....	1	
Dilatation of the heart.....	1	
Ganglion.....	1	
Sebaceous cyst.....	1	
Goitre.....	1	
Inflammation of glands.....	2	
Abscess.....	5	
	<hr/>	21

Injuries — all slight.

Scald.....	1	
Contusions.....	4	
Incised wounds.....	2	
	<hr/>	7

Total number of cases.....

 181

It has not been possible to discover, with certainty, where the scarlet fever originated, which appeared in November last. Of the five cases, all among the pupils, four were mild in character, but the fifth was severe, although never so much so as to endanger the life of the patient. The children suffering from scarlet fever were carefully isolated from the rest of the scholars, and the further spread of the disease by contagion was prevented. This is the third time that scarlet fever has occurred in the institution, and by similar management it has in each instance been limited to a very small number of cases.

While this disease occupied the hospital to the exclusion of every thing else, we were fortunately able to engage the house, conveniently situated on Madison street, belonging to Miss Rosa A. Dunn, for the temporary care of the other sick. Miss Dunn was employed as nurse, and in the performance of her duties was faithful and judicious. It was necessary to retain her services for two months.

The single cases of typhoid fever and diphtheria, which were met with undoubtedly depended on causes exterior to the institution. The fact that such diseases were not inclined to spread is excellent proof of the thoroughly healthful condition of our surroundings.

There were no deaths during the year.

The arduous and responsible position of matron and nurse to our hospital has been filled for several years by Mrs. Tyler, who continues to display her accustomed ability and fidelity.

In a deep sense of the gratitude due to the divine dispenser of the many blessings which have been conferred upon our school, I close my report and hope that the coming year will give ample proof of an undiminished prosperity.

THOS. M. FLANDRAU, M. D.

REPORT OF THE PRINCIPAL

To the Board of Trustees of the Central New York Institution for Deaf-Mutes :

GENTLEMEN—During the fiscal year, which closed on the 30th of September, 1884, there were under instruction in the institution, one hundred and five male pupils and sixty-one female pupils, a total of one hundred and sixty-six, which includes thirteen new admissions. Eighteen pupils severed their connection with the school during the year — fifteen males and three females — of which number the terms of six had expired, three were detained at home by parents (cause unknown), six were transferred to other institutions, more easy of access from their homes, one was sent to college and two died at home during their vacation, leaving ninety male and fifty-eight female pupils, a total of one hundred and forty-eight, connected with the institution September 30, 1884. Of the whole number during the year there were supported by the State one hundred and twenty-eight; by the counties, thirty-eight. The average attendance during the past year was about one hundred and sixty. In the educational department there have been two changes. Miss Susie W. Allen, teacher of articulation for the past two years, resigned in December on account of sickness. Miss Prudence E. Burchard, a lady well fitted for her work and highly recommended, was selected to fill her place. Mrs. J. D. Berry, formerly Miss Jennie Van Tassell, resigned at the end of the year, and Miss Mary C. Bennett, a graduate of the Fort Edward Collegiate Institute, was appointed to fill the vacancy.

The school has been divided into five departments: the academical, the preparatory, the intermediate, the primary and the articulation. The academical department consists of three divisions under competent instructors. The studies pursued are geography, history, both United States and English, natural history, hygienic physiology, arithmetic, scripture and grammar, and in some cases natural philosophy and physical geography are taught in addition. Two classes compose the preparatory department, these are taught the fundamental branches, which in due course of time will enable them to enter the third division of the academical department. The intermediate department comprises but one class, which is instructed in the rudiments of geography, language lessons, arithmetic and DR. Peet's Course of Instruction, Part III. Four classes comprise the primary department, all of which are being graded with a view to entering the preparatory department.

The educational results of the work of the past year in the school generally have been of a very satisfactory character. The teachers all have been very attentive to their work and have endeavored to impart as much knowledge as possible to the minds of the pupils. Many expressions of pleasure have been received from the parents at the progress their children have made.

The system of instruction pursued in this institution, the one known as the "combined method," gives each pupil an opportunity of receiving instruction through signs, through dactylology or spelling, and, if his vocal powers be good, through articulation.

There seems to be so much misconception in connection with the education of the deaf and dumb, the means employed and the object to be attained, that it will not perhaps be out of the way to make a few brief remarks upon the subject. "That system must be acknowledged best by the true friends of the deaf and dumb, which most fully answers *all* the needs of this unfortunate class," said an experienced teacher of deaf-mutes by the oral method, who also, after having admirable and ample opportunities to observe the "combined system" and its results in a large institution, is "satisfied of the incontestable superiority of signs over speech as a means of instruction for the great majority of congenital deaf-mutes." In attempting to form an estimate of the work to be accomplished, one leading consideration must be borne in mind, viz., the condition of a deaf and dumb child on entering an institution. When a hearing child first goes to school, although he may not know a single letter of the alphabet, he yet has a perfect means of communication with other persons in the speech he has naturally and without apparent effort acquired from constantly hearing it around him from his earliest days; in short, he possesses a mother tongue. With the deaf and dumb it is otherwise. While it is just as great a necessity in their case as in that of their more fortunate hearing brethren, to train their morals, enlighten their minds and cultivate their intelligence, there is yet superadded the additional task of creating a language for them, that is, to give them words, explain their meaning and their varying uses in the formation of sentences.

In one institution of the State it seems to be a commonly-accepted theory that the only thing to be done is to teach the manual alphabet, and that accomplished, all becomes easy and plain sailing; one has simply to proceed in spelling words and complete sentences and their purport and application will be as readily understood as are spoken utterances by hearing children. Would that it were so! The deprivation of hearing means not only that it precludes those so afflicted from acquiring speech in the ordinary manner, but it consigns them to a life of mental, moral and spiritual ignorance, unless they are received into an institution where that system is acknowledged to be the best which *most fully* answers *all* the needs of this unfortunate class. The best results, I think, can be obtained only by the use of what is known as the "*combined method*." Visitors who take an interest in this work and visit the institution, must try and realize

this fact, that in the majority of cases, when the children come to us, they know nothing whatever. They can recognize the persons and objects they see around them, and can show by imitation the purposes to which the latter can be applied. Here, however, this power ends. They are in absolute ignorance of the names of every one of them, neither can they tell, because they know no words in which to do so, their different qualities, who makes them, whence they are obtained, and all the details respecting them, which would be familiar enough to any hearing child of the same age. The first thing, therefore, to be gained is the establishment of a medium of communication. Certainly the manual alphabet is not the thing. You spell to a child the word "ox." What does a child think and know about that? Why it will look at you in perfect amazement. You describe to him in the sign language an "ox," how its horns protrude from its head, how the man drives it with a whip, and then write the name on the slate and point to it. You will immediately see the child's face brighten up, look at you representing a picture as it were by signs, and then point to the word written on the slate and try to imitate you. Thus the medium of communication is afforded in the sign language, and, imperfect though that may be, every deaf and dumb child of normal intellectual capacity, naturally uses it to make itself understood long before entering an institution. Let it be here emphatically stated that the object sought in deaf and dumb institutions using the "combined system," is not, as has so willfully and erroneously been stated, to build up an elaborate and complex system of signs, intelligible only to the deaf and dumb themselves and their teachers, but to familiarize them with written or spelt language in its common colloquial forms; to bring such into constant practice during their school life, and thus place the pupils under our charge in possession of a ready means of communication with those among whom they will be placed after leaving school. It is a most regretful feature in connection with deaf-mute education that our pupils are often withdrawn after a four or five years' school term on the plea that they are old enough to earn their own living. If children in the full possession of their faculties require eight or nine years, or even longer at school, it is manifestly impossible that those who are laboring under the loss of the most important of the senses can be thoroughly well educated and prepared to go out and fight the battle of life in the short space of four or five years. With the above brief remarks, which, I think, will suffice to show the stand this institution takes in regard to deaf-mute instruction, I will proceed with my report. The usual written examinations, under the personal supervision of the principal, have been gone through with, and although they were very rigid and severe, still the results were very satisfactory, and in order to show the proficiency acquired by the pupils in the academical department, I have annexed to this report three original specimens. The classes in all the other departments were also thoroughly examined and showed great proficiency and continued progress. Prof. J. A. Barringer,

superintendent of the public schools, by request, examined the articulation department and expressed satisfactory results.

In the domestic department there have been some changes. Mrs. Isadore Rich was appointed to fill the place occupied by Mrs. Mira Brown as assistant matron, Miss Cynthia M. Hubbard succeeded to the position of sewing matron in place of Miss A. E. Rhoades, who was appointed temporarily the latter part of last year. Miss Nellie Scott was appointed to fill the position of housekeeper, which was made vacant by the resignation of Miss Ella Watson; and Miss Mary E. Jones was appointed in Miss Scott's stead as seamstress.

The institution continued last year to give to as many pupils as possible the opportunity of acquiring some profitable trade as a means of livelihood after leaving school. To the girls, instruction in plain sewing and dressmaking were given in the sewing department, and they were also practiced in light household work daily under the supervision of the matron.

To the boys, the usual choice of trades specified in former reports were given, to which was added printing. This was a private enterprise of one of the boys, who spent the money earned during vacation for a small printing press. He, understanding the art of printing, gave a few boys instruction, and after a while a little paper came out, which was called the "*Nucleus*," and edited by Harry Van Allen, a pupil at that time, who entered the National Deaf-Mute College at Washington in September. This little paper proved such a success that the same boy has enlarged the paper this year, and the first copy came out on Saturday, October 18, 1884, under another name, "*The Register*."

The interest taken in the Literary Association the past year has been very great. Lectures and debates were indulged in by the pupils themselves, which proved to be of great benefit to them as well as a great source of amusement. The occasional social reunions throughout the year also gave enjoyment to all taking part. During the past year, we had five cases of scarlet fever, and one case of typhoid; but by using proper precautions and exercising the greatest care we were enabled to prevent its spread. Otherwise, the general physical condition of the pupils has been excellent, and no deaths have occurred. For particulars and details regarding the health of the pupils, I respectfully refer you to the report of our worthy physician.

ACKNOWLEDGMENTS.

We are happy to acknowledge the receipt of the following newspapers: *The Rome Sentinel*, *The Roman Citizen*, *The Deaf-Mute Journal*, *The Michigan Deaf-Mute Mirror*, *The Mute's Companion*, *The Deaf-Mute Record*, *The Goodson Gazette*, *The Maryland Deaf-Mute Bulletin*, *The Tablet*, Romney, West Virginia; *The Kansas Star*, *The Deaf-Mute Optic*, *The Nebraska Mute Journal*, *Vis-a-Vis*, Columbus, Ohio; *The Deaf-Mute Hawk-eye*, *The Wisconsin Deaf-Mute Times*, *The Deaf-Mute Pelican*, Baton Rouge,

La.; *The Auralist*, Omaha, Nebraska; *The National Deaf-Mute Leader*, Brooklyn, N. Y.

We are also greatly indebted to those citizens of Rome, who kindly and generously contributed to the enjoyment of the children on Christmas.

In June last, the ninth annual exhibition was held in the chapel of the institution to a very full house, and seemed to give general satisfaction; the following resolutions, passed at a previous meeting of the board of trustees, were read:

RESOLUTIONS.

WHEREAS, the following named State pupils in the Central New York Institution for Deaf-Mutes, Rome, N. Y., have passed an examination satisfactory alike as regards attainments and conduct; and

WHEREAS, the same have completed, or during the coming academical year will complete, the term of five years, for which they were originally selected as State pupils by the Superintendent of Public Instruction; therefore

Resolved, that the said pupils be, and they are hereby recommended to the Superintendent of Public Instruction, to be continued under instruction three years, from and after the expiration of their several terms, agreeably to the existing provisions of law:

Elizabeth M. Stewart, from September 1, 1884.

Stiles Woodworth, from September 1, 1884.

Hetty J. Olds, from January 15, 1885.

George Smith, from January 21, 1885.

Mary E. Warner, from March 10, 1885.

Eveline L. Demers, from February 21, 1885.

Gaylord Keyes, from March 1, 1885.

* Lindley Cook, from February 27, 1885.

John H. Thomas, from February 4, 1885.

Mary A. Sheridan, from April 20, 1885.

John F. Keller, from April 30, 1885.

Resolved, that Charles S. Risley, who on September 1, 1884, will complete his full term authorized by law as a State pupil, and who has passed a satisfactory examination, be, and he is hereby recommended to the Superintendent of Public Instruction to be selected for admission to the High Class on the expiration of his term.

Resolved, that a copy of the foregoing resolutions be forwarded to the Superintendent of Public Instruction for his action.

Resolved, that diplomas certifying to the completion of an eight years' course of instruction be given to the following named pupils, viz.: Charles S. Risley, William Gleasman, Patrick Brennan, Grace Weeks.

An opportunity offered itself this summer for visiting the deaf-mute schools of Manchester and Birmingham, England, both of the visits were very interesting and were productive of many profitable suggestions. The Manchester buildings are handsome and suffi-

ciently commodious to meet every need. This school is being gradually turned into an oral school, with what success remains to be seen, and I shall watch the experiment with interest. The English people appear to fully realize the importance of deaf-mute education, and while their schools are conducted on rather a different plan from American ones, there are many points worthy of emulation. In the Educational Department of the Health Exhibition in London, I also noticed several very interesting displays of work done by deaf-mutes, and illustrations of the different modes of education. In conclusion, I wish to express my thanks for your hearty co-operation in all my efforts thus far, and I hope to continue to so manage the affairs of this institution as to merit your constant approval.

Very respectfully submitted,

EDWARD BEVERLY NELSON,

October 28, 1884.

Principal.

CATALOGUE

OF

PUPILS CONNECTED WITH THE INSTITUTION DURING THE YEAR
ENDING SEPTEMBER 30, 1884.

MALES.

Names.	Towns.	Counties.
Abell, Herbert S.....	Geddes.....	Onondaga.
Adams, Willie.....	Rome.....	Oneida.
Alterhouse, Augustus.....	Red Hook.....	Dutchess.
Archambeau, Joseph.....	Oswego.....	Oswego.
Baker, Frank K.....	Auburn.....	Cayuga.
Bellinger, William.....	Forestport.....	Oneida.
Bellinger, Charles.....	Forestport.....	Oneida.
Bell, Thomas.....	Albany.....	Albany.
Blair, Anthony.....	Utica.....	Oneida.
Boxley, Clarence.....	Troy.....	Rensselaer.
Boyd, Lewis.....	Cazenovia.....	Madison.
Bremner, Thomas.....	Syracuse.....	Onondaga.
Brennan, Patrick.....	Kirkland.....	Oneida.
Burns, Robert.....	Gloversville.....	Fulton.
Carpenter, Daniel G.....	Gloversville.....	Fulton.
Churchill, Frank.....	Albany.....	Albany.
Cook, Lindley.....	Taberg.....	Oneida.
Costolo, Michael.....	Pompey.....	Onondaga.
Costolo, Dennis.....	Pompey.....	Onondaga.
Cox, William.....	Mannsville.....	Jefferson.
Cowles, William B.....	Wells.....	Hamilton.
Darrell, Manley.....	Elmira.....	Chemung.
Dane, Loren.....	Wells.....	Hamilton.
Darby, James A.....	Hannibal.....	Oswego.
Davids, Fred. C.....	Auburn.....	Cayuga.
Dingman, Jr., James.....	Vernon.....	Oneida.
Ellsworth, Willie.....	Morristown.....	St. Lawrence.
Ewig, George.....	Utica.....	Oneida.
Flanagan, Fred A.....	Malone.....	Franklin.
Francis, Frank.....	Mina.....	Chautauqua.
Foster, Frederick.....	Onondaga.....	Onondaga.
Fields, Birney.....	Watertown.....	Jefferson.
Furey, James F.....	Saratoga Springs.	Saratoga.

Names.	Towns.	Counties.
Gardner, Henry A.....	Mannsville	Jefferson.
Getman, Charles.....	Johnstown	Fulton.
Gage, Benjamin.....	Westford.....	Otsego.
Gibbs, Charles D.....	Sodus.....	Wayne.
Gleasant, William.....	Ava.....	Oneida.
Greenslete, William A.....	Wells.	Hamilton.
Hayes, Patrick.....	Geddes.....	Onondaga.
Handy, Sanford J.....	Sharon	Schoharie.
Henry, George.....	Croghan.....	Lewis.
Hilts, Walter.....	Rome.....	Oneida.
Holluff, Joseph, Jr.	Oswego	Oswego.
Holluff, Andy.....	Oswego.....	Oswego.
Howe, Thomas.....	Geddes	Onondaga.
Hubbard, Wm. A.....	Paris Hill.....	Oneida.
Huffstater, L. D.....	Ellisburg	Jefferson.
Johanns, John.....	Johnstown	Fulton.
Jones, John J	Rome.....	Oneida.
Keller, J. F.	Geddes.....	Onondaga.
Keenan, Andrew.....	Clay	Onondaga.
Kennedy, John.....	Greig	Lewis.
Kenyon, Jesse H.....	Rome.....	Oneida.
Keyes, Archibald.....	Western.....	Oneida.
Keyes, Gaylord	Western	Oneida.
Knox, Morris	Elmira	Chemung.
Kimball, Solomon	Milford	Otsego.
Kinsella, Thomas.....	Utica	Oneida.
Lassell, Myron	Lasselsville	Fulton.
Lashbrooks, Charles.....	Gouverneur	St. Lawrence.
Lee, Frank O	Baldwinsville ...	Onondaga.
Lynch, James.....	Binghamton	Broome.
Maxwell, Joseph	Pulaski	Oswego.
Messinger, Charles.....	Constantia.....	Oswego.
Minkle, Martin.....	Strykersville....	Wyoming.
Miller, Adam	Little Falls	Herkimer.
Mitchell, Homer	Worcester	Otsego.
Murphy, Edward T.....	Geddes	Onondaga.
McGrath, Roger.....	Ridgeway	Orleans.
McCabe, James	Elmira	Chemung.
McCabe, Daniel.....	Elmira	Chemung.
McGuinness, Michael	Verplank's Point	Westchester.
McGovarn, James	Herkimer	Herkimer.
Norton, William B.....	Sandy Hill	Washington.
Odell, Leonard W	Lorraine	Jefferson.
Orr, Omer	West Oneonta ..	Otsego.
Post, Reuben C.....	Stillwater	Saratoga.
Pousho, Charles	Oswego	Oswego.
Riley, William.....	Verona	Oneida.
Risley, Charles.....	New York Mills.	Oneida.

Names.	Towns.	Counties.
Sayles, Amos A	Lenox	Madison.
Seigler, F. H	Ava	Oneida.
Shephard, Mather E	Lyons Falls	Lewis.
Shaw, Matthew	Watson	Lewis.
Shaw, Arthur	Watson	Lewis.
Shubert, Arthur	Rome	Oneida.
Smith, George	Albany	Albany.
Snell, George M	Little Falls	Herkimer.
Stearns, Willie	Orwell	Oswego.
Stewart, George	Lenox	Madison.
Stone, William A	Lenox	Madison.
Taylor, Martin	Berlin	Rensselaer.
Taplin, Sydney	Norristown	St. Lawrence.
Thomas, John	New Hartford ..	Oneida.
Tilbury, Bennie O	Union	Broome.
Van Allen, Harry	Clayton	St. Lawrence.
Van Dyke, Edwin	Ava	Oneida.
Walsh, James	Binghamton	Broome.
Woodworth, Stiles	Clay	Onondaga.
Wilkins, Erastus	Half Moon	Saratoga.
Wright, Walter	Glens Falls	Warren.
Winchell, A. M	Lenox	Madison.
Wilbert, Herman	Rome	Oneida.
Wooster, Wallace G	Elmira	Chemung.

FEMALES.

Alton, Julia	Oswego	Oswego
Bemiss, Mary	Edmeston	Oswego
Brett, Emily	Watertown	Jefferson.
Burkhardt, H. F	Oswego	Oswego.
Bugler, Beatrice E	Gloversville	Fulton.
Burton, Clara	Camden	Oneida.
Beckingham, Flora E	Utica	Oneida.
Carpenter, Maggie	Utica	Oneida.
Campbell, Rostella	South Otselic	Chemung.
Collamer, Hattie	Milton Centre ...	Saratoga.
Collamer, Alice	Milton Centre ...	Saratoga.
Costolo, Mary	Pompey	Onondaga.
Craner, Maria	Hastings	Oswego.
Clarke, Caroline A	Cohoes	Albany.
Collins, Mary	Amsterdam	Montgomery.
Day, Frankie	Fort Edward	Washington.
Demers, Eva	Troy	Rensselaer.
Evans, Ella	Turin	Lewis.
Ewig, Rose	Utica	Oneida.
Finlayson, Mary	Boonville	Oneida.
Flood, Addie	Boonville	Oneida.

Names.	Towns.	Counties.
Fredericks, Nellie.....	Plattsburgh	Clinton.
Fields, Jennie	Watertown	Jefferson.
Getman, Ida.....	Johnstown.....	Fulton.
Hogeboom, Hattie.....	Schenectady	Schenectady.
Johnson, Mary.....	Canastota	Madison.
Johnson, Helen	Clayton.....	Jefferson.
Jones, Margaret	North Gage....	Oneida.
Kempinich, Rosa.....	Croghan	Lewis.
Loucks, Nellie.....	Salisbury	Herkimer.
Lawton, Grace.....	Ellery	Chautauqua.
Martin, Lulu	New York Mills.	Oneida.
Mulligan, Hattie.. ..	Watertown	Jefferson.
Miller, Emma	Syracuse	Onondaga.
Miller, Minnie.....	Ames.....	Montgomery.
Monahan, Mary	Utica	Oneida.
Oliver, Jessie	Glendale	Lewis.
Olds, Nettie M	Brier Hill.....	St. Lawrence.
Olds, Hettie J	Maryland.....	Otsego.
Risley, Bertha B.....	Canton.....	St. Lawrence.
Rogers, Grace.....	Van Buren.....	Onondaga.
Roraback, Hester J	Sweden	Monroe.
Sagendorff, Elnora	Cobleskill	Schoharie.
Shutts, Cora	Syracuse	Onondaga.
Shaw, J. E.....	Watson	Lewis.
Sheridan, Addie.....	Little Falls.....	Herkimer.
Snyder, Julia.....	Butler	Wayne.
Stewart, Lizzie	Lenox	Madison.
Stelson, Ella.....	Manlius	Onondaga.
Ullrich, Caroline.....	Marcy.....	Oneida.
Warner, Mary E.....	Mayfield	Fulton.
Watson, Elizabeth.....	Rome.....	Oneida.
Weaver, Mary B.....	Saratoga Springs.	Saratoga.
Weinbrecht, Louisa... ..	Green Island...	Rensselaer.
Wentworth, Ella.....	Lee Centre.....	Oneida.
Weeks, Grace.....	Skaneateles	Onondaga.
Williams, May.	Western	Oneida.
Winegar, Annie.....	Utica	Oneida.
Winegar, Jennie.....	Utica	Oneida.
Winegar, Maud Edna.....	Utica	Oneida.
Wolfe, Minnie.....	Rome.....	Oneida.
Males.....		105
Females.....		61
Total		166

VALEDICTORY.

Delivered by Miss ELLA J. RANDALL at the exhibition in June, 1883.

One of the greatest truths we have to learn is that this is a world of change. We are reminded of the fact in almost every thing we read. We are reminded also that the change is mostly one of progress. It would be a great misfortune to a man if it were ordained that he should not improve his condition. The lives of European millions would be almost unbearable, except for the possibility of emigration to the United States. All the best changes that have taken place in our country since its discovery, we owe to the people that have come from foreign shores.

The art of deaf-mute instruction is an importation. It was first applied in America by a Frenchman, an educated deaf-mute himself. The changes that take place in the mental condition of a deaf-mute during the years of his instruction are truly wonderful, as we who have been through them all can happily attest. These successive changes have progressed us to this, our graduating hour. We take leave of our institution with sincere regret. We shall always be jealous of its honor, and strive by our lives to add luster to its name.

HONORED MEMBERS OF THE BOARD OF TRUSTEES — We cannot express our profound gratitude for your labor and interest in our behalf. May God, who deprived us of our hearing and speech and conducted us here to reap the benefits of the great work under your fostering care, bless you always. We bid you a sad farewell.

OUR ESTEEMED AND HONORED PRINCIPAL — You have been a father to us during the years of our pupilage, and it fills us with sadness to think how speedily they have rolled by on the wheels of time, and that we must now part. We shall remember you forever, and pray for heaven's choicest blessings to be showered on you. Farewell.

FAITHFUL TEACHERS — The time has arrived for us to take a final leave of you who have labored for us. Words cannot express our sorrow in this parting hour. Thanks for all your labors in your efforts to do us good. Thanks for your patience with us in our dull and stupid moments, and we have had many. Thanks for the practical teachings we have received to enable us to battle with the world in whose broad school-room we shall strive to learn more. Farewell.

OUR SCHOOLMATES AND CLASSMATES — A few words to you before we take our final leave. Oh, how rapidly the time has arrived!

We have spent many pleasant hours with one another in the daily walks of our life. We entreat you to obey your teachers and do well in your lessons. Try to be patient under all discouragements, and cultivate and improve your minds. This is your great object, and duty and privilege while here. We, who are about to graduate, know the value of each school day moment, and we conjure you never to waste the precious time, which, once lost, is gone forever. The time will come, all too soon, when, like us, you will reach the threshold of the world, and must pass over. May your determination be then, what ours is to-day, never to do a single thing that will cast discredit upon the institution to which we now bid a tearful farewell.

SALUTATORY.

Delivered by Miss CORA A. SHUTTS at the exhibition in June, 1884.

LADIES AND GENTLEMEN — It is a pleasure and an honor to welcome you here to-day. It is quite a journey for you to come so far from the city proper to see us, and we sincerely hope you will feel repaid for your trouble. It is too true that our institution buildings are quite a distance from the busy part of the city; but while we cannot grow to you, you can grow to us, and we hope that we shall, in good time, see our institution, which we prize a great deal, in the very center of a nourishing city. There are several signs that Rome is growing very fast, as it surely ought to, according to its name, which speaks volumes.

We remember very well the time we first came to school, not knowing any thing and feeling like one who had lost his mind; but now that we can read and write, and above all, have found our heavenly Father, we feel very grateful to our worthy principal and teachers for having taken such great pains to teach us, as otherwise we could never hope to find our way through the duties that await us all. Those who try to help and encourage our institution can always feel that their efforts are not in vain.

We appreciate the honor done us by your presence here this afternoon, and in our turn we will try our best to make your visit pleasant and interesting. As we are again disappointed in our hope that this year would bring us a substitute for this weather-beaten structure, we once more apologize for our surroundings and resume the hope that another year will bring us the fulfillment of our desire.

We share in the common wonder that deaf-mutes can learn at all, and when we think of our own progress we can but pity those Egyptian children, deaf like ourselves, forsaken by their own parents and obliged to run begging through the streets. This was told us by a Syrian lady, who is a missionary to her native country and visited us last year. She told us how she had fled from her country, being pursued by the Mohammedans for believing in our

Lord; and I suppose there are some among you who heard her preach in the Presbyterian church.

It is with gratitude that we remember our benefactors, those pioneers who established the first deaf-mute institution, from which have sprung the sixty schools now in the country. How proud they would feel if they could only rise from their graves for a few minutes.

Again we repeat that you are heartily welcome, and we hope that while you are seeing something of the manner in which we have been taught, you will find it interesting and appreciate our efforts to make it so.

VALEDICTORY.

Delivered orally by H. VAN ALLEN at the exhibition in June, 1884.

One of the most unalterable truths is that nothing worth having can be obtained without working therefor, and he has most who works most. Work is the mission of man on earth. It is a necessity, and there is no law juster than this: Whoso will not work, neither shall he eat. "An endless significance lies in work; in idleness alone is there perpetual despair."

Every man has his work to do. At his birth the part he has to play in the grand scheme of the universe is assigned him, and all through his life he will try to find his life work and try to do it. He may not find it, he may leave the work undone, and he may die with a vague feeling of dissatisfaction and incompleteness, but his place will be filled and his work done by another man.

Deaf-mutes, too, are born with a mission to perform, with some work to do. In a struggle in which brute strength will avail nothing, knowledge, intelligence and self-control are necessary, and all these the uneducated deaf-mute lacks. A deaf-mute is really a production of Nature, which she, with unwonted carelessness, has left but half completed. To remedy this great oversight on her part, there have been established here and there deaf-mute institutions, which to the vulgar eye are only schools, but to the thoughtful, they are portions of the vast machinery of the universe, accessory work-shops where the oversights of our common mother, great Nature, are rectified. From these work-shops yearly there pass out crowds of young men and women, rejoicing in clear intellects, trained minds and warm, hopeful hearts, ready and eager for the battle of life.

TO THE HONORABLE GENTLEMEN OF THE BOARD OF TRUSTEES—
Another year has passed by and become part and parcel of the past, and to-day another class is to bid good-bye to the institution forever, and step out in the wide world of all possibilities. We are

sincerely grateful to you for your watchful care over the institution where we have been educated, and before we leave the institution we bid you farewell, and hope that you will be long spared for your present work of usefulness.

TO THE PRINCIPAL AND TEACHERS — We well know what would now be our condition were it not for the instruction, care and guidance you have given us during our school days, and to you we are most sincerely grateful. May the honor and reverence and good repute that follow faithful service as its fruit be unto you all. Farewell.

GRADUATING CLASSMATES — We are together now for the last time and are about to step out into the arena of life. No one can tell what the future has in store for us, but we can meet all bravely, and do all the good we can, and when we can do no more, make room for others.

He best deserves a knightly crest
Who slays the evils that infest
His soul within. If victor here,
He soon will find a wider sphere.
The world is cold to him who pleads;
The world bows low to knightly deeds.

EXAMINATION PAPERS.

SCRIPTURE LESSONS.

I. Who was Ruth? Why did she leave her relations? What did she glean? Who was Boaz? Whom did Boaz marry?

II. What was the character of Samuel? Who was Eli? How did God punish the sons of Eli? Who was the first king of Israel? How did Saul and Jonathan die?

III. Who was David? Tell about the killing of the giant Goliath? How tall was Goliath? What was the character of David? What did David write?

IV. Who was Absalom? What was his character? What did he do? How did he lose his life? Who killed him?

V. What was the character of Solomon? Who respected and honored him? What did he do when he grew old? Why was God angry with him? What did Solomon build?

Preparatory Department.

February, 1884.

ARITHMETIC.

I. When flour is 7 dollars a barrel, how many barrels can be bought for 63 dollars? If one ream of paper cost 5 dollars, what will 9 reams cost?

II. Write out the table for *United States money*, for *English money*.

III. If a ton of hay cost 7 dollars, what will 8 tons cost? What is subtraction, multiplication?

IV. A man earned 7 dollars in one week, and spent 5 dollars of it; how many did he save? A boy, after losing 6 marbles, had 4 left; how many had he at first?

V. Write out the tables of *avoirdupois weight*, *liquid measure*, *long measure*, and *measure of time*.

Preparatory Class.

February, 1884.

GRAMMAR.

I. What is an object? What is a sentence?

II. Write the names of five objects. What does a declarative sentence express? An interrogative sentence?

III. Turn the following declarative sentences into interrogative sentences:

1. "It is cold."
2. "We shall go to town to-morrow."
3. "The farmer tills the ground."
4. "The school has closed."
5. "Mary is happy."

IV. What is a noun, a verb? What are equality words called? What is an adverb? For what may an adjective be used?

V. Write three sentences each containing only *three* words—an *adjective*, a *noun* and a *verb*. Write three each containing only *four* words—an *adjective*, a *noun*, a *verb*, and an *adverb*.

Preparatory Department.

February, 1884.

DIVISION III — ARITHMETIC.

I. Write out the table of *dry measure*, *liquid measure*.

II. At 10 cents a quart, what costs one bushel of cherries? At 10 cents a quart what will one gallon of molasses cost?

III. Write out the table for *avoirdupois weight*. At 9 cents a pound, what will 1 cwt. of sugar cost?

IV. What does the *sign of equality* signify? What does the *sign of addition* denote? What do the *signs of subtraction* and *multiplication* signify? What does the *sign of division* indicate?

V. If wood is worth 6 dollars a cord, and coal is worth 6 dollars a ton, how many cords of wood will pay for three tons of coal? If I walk eight miles in two hours, how many miles do I walk in one hour?

Academical Department.

February, 1884.

DIVISION III — GEOGRAPHY.

I. Of what does the German Empire consist? What two seas north of Germany?

II. What promontory in the south of Spain? What is the western cape of Spain?

III. What is a cape, an isthmus, a strait, a lake, a peninsula?

IV. Of what country is Assumption the capital? What water north of the United States of Columbia?

V. What lake and state east of Illinois? What does the Mississippi separate from Iowa? What is the capital of Wisconsin, of Kentucky?

Academical Department.

February, 1884.

DIVISION III — UNITED STATES HISTORY.

I. When was the *Federal Constitution* adopted? In what year did the City of Washington become the seat of government?

II. When did Thomas Jefferson become President, and how long did he continue in office? What sad event took place in 1804?

III. When was war declared against England? Name and describe the first naval battle during this war.

IV. When and where was a *treaty* of peace signed between the United States and England? Describe the naval battle fought on Lake Champlain, on the 11th day of September, 1814.

V. When was the Erie canal opened? What is its length? What does it connect? What is said of commerce and manufactures after the war of 1812?

Academical Department.

February, 1884.

DIVISION III — GRAMMAR.

I. What is a qualifying adjective? Name three parts of speech having no modifications.

II. What is the rule for forming the possessive plural nouns? What is case?

III. Write in the plural form the statement, *a man tries to be rich*. Write a sentence introducing *feet* in the singular.

IV. What four modifications have personal pronouns? Decline the personal pronoun "I."

V. Compose a sentence containing the personal pronoun of the third person singular number, feminine gender. Name the parts of speech.

Academical Department.

February, 1884.

DIVISION II — ARITHMETIC.

I. Write the table of *avoirdupois weight*. What is it used for?

II. Write the table of *dry measure*. What is it used for?

III. At 25 cents a pint, what will one gallon of wine cost? What cost 2 qt. 1 pt. 3 gi. of molasses, at 2 cents a gill?

IV. Write out the table of *liquid measure*. What is it used for?

V. What is *numeration*, *addition*? What does the *sign of addition* denote? In one bushel there are 4 pecks, how many pecks are there in 3 bushels?

Academical Department.

February, 1884.

DIVISION II — GEOGRAPHY.

I. Why is our country called the United States? Name the largest tributaries of the Mississippi river, and state where they rise.

II. Bound the United States. What river empties into the Gulf of California?

III. In what zone is our country situated? What two capes on the coast of Massachusetts? What cities on Long Island Sound? Where is Maine? Bound it.

IV. Where is Concord, Worcester, Burlington, Bangor? What city north of Annapolis? In what direction is Washington from

Buffalo? Buffalo from Philadelphia? Harrisburgh from Pittsburgh? Dover from Trenton? New York from Washington?

V. Describe the Scioto river, Wabash river.

Academical Department.

February, 1884.

DIVISION III — UNITED STATES HISTORY.

I. What did the United States gain by the treaty with Mexico? What was the *Fugitive Slave Law*?

II. What three new States were added to the Union at the close of 1859? Who was elected President in the fall of 1860?

III. When and where was the first gun fired in the *Civil War*? How long did the *Civil War* last, and what calamities did it cause?

IV. What captures were made in February, 1862, and by whom? Why was Chattanooga a post of great value?

V. When and to whom did Vicksburgh surrender? What generals commanded in the battles before Chattanooga? Give the names of these battles. When and at what place did General Lee surrender? When and how was President Lincoln killed?

Academical Department.

February, 1884.

DIVISION II — GRAMMAR.

I. What four modifications have personal pronouns? Decline *who*, *which*.

II. Define indicative mood. What is the infinitive?

III. Define active voice. What is an auxiliary verb?

IV. What is "*to conjugate*" a verb? What is the root of a verb?

V. Write out the *past perfect tense*, *potential mood* of the verb "*to love*." Write out the *past tense*, *subjunctive mood*, of the verb "*to walk*?"

Academical Department.

February, 1884.

DIVISION II — NATURAL HISTORY.

I. Describe the various kinds of deer. Describe *the elk*.

II. What can you say about the antelope, the zebra?

III. Describe the horse, the cow.

IV. In what month do people shear sheep? Describe the reindeer.

V. What is the flesh of the deer called? Describe the *bison* and buffalo.

Academical Department.

February, 1884.

DIVISION I — NATURAL HISTORY.

I. What are quadrupeds? What are the two grand divisions of this class?

II. Give the names of the orders of the unguiculata and their derivations?

III. Into how many families is the order *carnivora* divided? Name them.

IV. Describe the appearance and habits of the lion. What is said of the leopard?

V. Describe the wolf and its habits. What are the characteristics and habits of the foxs?

Academical Department.

February, 1884.

DIVISION I — ENGLISH HISTORY.

I. In what situation did Henry IV find himself on ascending the throne? What was the cause of his death? Where did he die? How old was he when he died?

II. Write an account of Joan of Arc. What was the fate of this woman?

III. What was the first act of Richard III? What was the cause of the death of Richard III?

IV. Relate the history of Lambert Simnel's imposture. Of Warbeck's.

Academical Department.

February, 1884.

DIVISION I — UNITED STATES HISTORY.

I. When were the *Articles of Confederation* adopted? When were the *Stars and Stripes* adopted?

II. What was the cause of the Revolutionary War? State the American views of taxation?

III. What determined the British Government to tax the colonies? Explain the stamp act.

IV. What was the "*Port Bill*," and when did it take effect? When was the first Continental Congress called?

V. When and where did the second Continental Congress meet? Who wrote the *Declaration of Independence*? When was it adopted? Give the facts of the capture of Rhode Island.

Academical Department.

February, 1884.

DIVISION I — GEOGRAPHY.

I. Name the zones and hemispheres and state what grand divisions are wholly or principally included in each.

II. Bound *Missouri, Africa*. Name the States on the left bank of the Mississippi river. Bound New York.

III. Name the principal gulfs and bays of North America. State where they are situated, and into what waters they open. Name the principal islands in the Mediterranean sea.

IV. Name and locate the gulfs and seas of Asia. Define a Republic, an Empire, a Metropolis. What rivers form the Ohio? Name the source of the Mississippi river. Where is Madagascar? What are the principal mountain ranges in the United States? Name the principal rivers of Europe. Where is Cape Agulhas?

V. Describe the River Rhine. In what direction from *New York* is *Rome*. *Plattsburg* from *Troy*. *Elmira* from *Albany*. *Watertown* from *Binghamton*? What two capes at the entrance to Delaware bay? To Chesapeake bay? What lake in New Hampshire; What lake partly in the northern part of Vermont? Describe the Connecticut river? Give the capitals of the Western States, and tell where each is situated?

Academical Department.

February, 1884.

DIVISION I — ARITHMETIC.

I. Write out the table for *solid or cubic* measure. What is it used for?

II. How many cubic feet in a room which is 18 feet long, 15 feet wide and 9 feet high? Reduce 7,496 gills to higher denominations. How many gallons in 24 jugs, each containing 2 gal. 3 qts. 1 pt.? How many acres in a field that is 20 rods wide and 50 rods long?

III. Write out the table for *long measure*. What is it used for?

IV. Write out the table for apothecaries weight. What is it used for?

V. Upon what does the value of a quotient depend? Write one unit of the seventh order, three of the sixth, seven of the third, and two of the second. Express in figures *six billions, fifteen millions, seven thousand and four hundred*. What does the *sign of addition* denote? What does the *sign of equality* signify.

Academical Department.

February, 1884.

DIVISION I — GRAMMAR.

I. Write rule ninth and illustrate it. When must a noun be in the possessive case?

II. Parse carefully the following sentences, giving the rules that govern each word:

"1." The lady went to Europe in the spring, but she has returned.

"2." The frost is intensely severe.

"3." Cæsar was a great general.

"4." Milton, the English poet, wrote *Paradise Lost*.

"5." Water consists of two gases.

III. What is an adjective phrase? An adverbial phrase?

Academical Department.

February, 1884.

DIVISION I — STORY OF THE GOSPEL.

I. Relate about Jesus casting out the evil spirits. How did Jesus bring the ruler's daughter to life again?

II. How did Jesus cure two blind men? Relate the miracle of the "five loaves of bread and two small fishes."

III. Who walked on the water to meet Jesus? What happened in the city called Bethsaida?

IV. Who went with Jesus on a lonely mountain to pray? What happened while he was praying?

V. What happened after Jesus had come down from the mountain? Relate a parable about a king whose servants owed him money and state the meaning of it.

Academical Department.

Annual, 1884.

DIVISION I — ENGLISH HISTORY.

I. Who was the most formidable opponent of Henry IV?

II. How long did Edward III besiege Calais? When was the "Order of the Garter" instituted and state what gave rise to it?

III. Who counterfeited the person of the Earl of Warrick? Give a *brief* account of "Joan of Arc."

IV. Who was the first wife of Henry the VIII? What followed the death of Wolsey?

V. What is said of Queen Catharine? Whose son was Cardinal Wolsey, and give a *brief* sketch of his life?

Academical Department.

Annual, 1884.

DIVISION I — UNITED STATES HISTORY.

I. Give the date of the first and last action of the Revolutionary war. How long did the war last?

II. The Revolutionary war was divided into six divisions; state what they were.

III. Give the principal events of the first division. Of the sixth period.

IV. Who commanded in the "battle of Yorktown?" Give the principal battles of 1775.

V. Give the date of *American Independence*? Name the different places where the "*Continental Congress*" met. When were the "Articles of Confederation" adopted and ratified? When and where was the final treaty signed?

Academical Department.

Annual, 1884.

DIVISION I — GRAMMAR.

I. Define the parts of speech and give an example of each. What are modifications of the parts of speech?

II. Define an "adjective phrase," an "adverbial phrase."

III. Tell the part of speech of each word of the following sentences:

1. "Walking is a healthy exercise."

2. "The sun and moon began their course in the skies."

IV. Write the plural of "*gas*," "*donkey*," "*pony*," "*loaf*," "*beef*," "*mouse*," "*tooth*," "*cross*." Write a sentence introducing "*geese*" in the singular.

V. "What kind of a sentence is the following, and why?" "Can you sing?" Analyze and parse the following sentences, giving the rule governing each word:

1. "The mountains rose, and the rivers flowed."
 2. "Emma broke my slate and gave me hers."
 3. "Seek the Lord while he may be found."
- Academical Department. Annual, 1884.

DIVISION I — NATURAL HISTORY.

I. What is said of the structure and habits of the insectivora? What are the families of this order?

II. Describe the arrangement of a molehill. What is said of the hedgehog?

III. Describe the grand peculiarity of the order "rodentia." How many families has this order?

IV. What are the structure and habits of the beaver? Describe the structure and habits of the seals.

V. Describe the common seal. What is said of the usefulness of seals to man?

Academical Department. Annual, 1884.

DIVISION II — ARITHMETIC.

I. How many yards of cloth, at \$4 a yard, can be bought for \$36? If 7 barrels of flour cost \$63, what will one barrel cost?

II. What is $\frac{1}{6}$ of 9 times \$4? What part of 4 is 1? Seven are how many times 3? How many are 7 times $\frac{1}{5}$ of 20?

III. What is the object of division? What is an abstract number, a "concrete number?" Of what use is the "*parenthesis*" and vinculum?

IV. What is multiplication? What are the multiplicand and the multiplier called?

V. At \$6 a ton, what is the cost of 5 tons of coal? A grocer having 20 boxes of lemons sold 12 boxes. How many boxes had he left?

Academical Department. Annual, 1884.

DIVISION II — GEOGRAPHY.

I. What two States occupy the Turkish peninsular? Where is Greece? What is its capital? What peninsular does the kingdom of Italy occupy?

II. Where is the German Empire? Of what does this Empire consist? What part of Europe is occupied by France? What are the principal rivers of France?

III. Bound Brazil. What is said of its size? What can you say of Patagonia? What country south of Bolivia?

IV. Between what mountain systems is the Mississippi Valley? Where is Boston, Savannah, Cleveland, Chicago, Toledo, Mobile, Cincinnati, Baltimore, Charleston?

V. What is a lake, an island, an isthmus, a peninsular, a strait?

Academical Department. Annual, 1884.

DIVISION II — SCRIPTURE LESSONS.

I. What did the apostles and disciples do after Christ had ascended to Heaven? What happened to Stephen?

II. On what day did Jesus rise from the dead? Who rolled away the stone?

III. How long did Jesus continue on earth after his resurrection? How long did the body of Christ lie in the tomb?

IV. What became of Judas, who betrayed Christ? Where was Jesus crucified, and between whom?

V. What is said of the infancy and youth of Jesus? What nation conquered the Jews after they returned from Babylon?

Academical Department.

Annual, 1884.

DIVISION II — NATURAL HISTORY.

I. Describe the "woodchuck." Describe the "camels," and tell what they are used for.

II. What can you say of the "giraffe," the "zebra"?

III. State what "oxen" are used for. What is a "steer" a "heifer"?

IV. From what animal do we get "*mutton*"? Describe the "elk."

V. State the varieties and habits of "owls." What can you say of the "whippoorwill"?

Academical Department.

Annual, 1884.

DIVISION II — GRAMMAR.

I. What are the two principal modifications of the noun? What is case?

II. What is an adjunct or modifier? What is an adverbial phrase?

III. Write two sentences illustrating an adjective phrase. How many tenses are there, and state what they are?

IV. What is a proper noun, common noun, an abstract noun? Give an example of each. Define a predicate adjective; a predicate nominative, and give an example of each.

V. Parse the following sentences:

1. "Order is heaven's first law."

2. "Mr. Douglass is a negro."

Academical Department.

Annual, 1884.

DIVISION II — UNITED STATES HISTORY.

I. Who succeeded Mr. Lincoln as President? After the ending of the civil war what remained to be done?

II. On what question did the views of President Johnson and Congress differ? What did the President desire and Congress demand? Who were the court and the judge in the impeachment of President Johnson? What is meant by the word "*impeachment*?"

II. What does the "*fifteenth amendment*" provide? Repeat the ending of President Lincoln's inaugural address.

IV. When and how was President Lincoln killed? When and to whom was the surrender of Vicksburg made?

V. Give a brief account of the life of "Stonewall Jackson"? Relate the story of the fight between the "Merrimack" and the "Monitor"?

Academical Department.

Annual, 1884.

DIVISION III — ARITHMETIC.

I. What is arithmetic? What is a unit, a number, the unit of a number?

II. What is notation? State the rule for notation?

III. What is an equation? Illustrate it. What is addition, subtraction?

IV. What is the cost of a pound of tea at 53 cents, and a pound of coffee at 27 cents? A gentleman gave to each of his five sons \$3840.50. What sum did he give to all?

V. The minuend is 7362, and the subtrahend $2043 + 1525 + 367$; what is the remainder? The subtrahend is $2362 + 501 + 96$, and the minuend 6704; what is the difference?

Academical Department.

Annual, 1884.

DIVISION III — UNITED STATES HISTORY.

I. When did the "*War of the Revolution*" begin? What did it end in?

II. What is the "*stamp act*," and was it passed? What did the "Continental Congress" agree upon? What had the Americans stored at Concord? When was the "battle of Lexington" fought?

II. Describe the "battle of Bunkerhill."

IV. When were the colonies declared free and independent? What battle was fought in December, 1777? Describe the "battle of Saratoga." What plot was discovered in September, 1780?

V. What treaty was signed on the 3d of September, 1783? When was the "Federal Constitution" adopted, and why was it called "Federal"?

Academical Department.

Annual, 1884.

DIVISION II — SCRIPTURE LESSONS.

I. What was the character of the Jews in the time of Daniel? Who was Daniel?

II. What strange thing happened at the King of Babylon's feast? What happened to Daniel?

III. Who fed the prophet Elijah? What was the end of Ahab and Jezebel?

IV. What did Solomon do when he grew old? Who was Absalom? What did he do? What happened to Joseph?

V. Why did Cain kill his brother? What did Noah do when he came out of the ark?

Academical Department.

Annual, 1884.

DIVISION III — GRAMMAR.

- I. Name the parts of speech. What is a sentence?
- II. How many forms may a sentence take? What is the subject of a sentence, the predicate? How is the plural of nouns generally formed?
- III. Define active voice. What is an irregular verb?
- IV. What is the conjugation of a verb? Name the modifications of pronouns.
- V. *Analyze* the following sentences:
 1. "All men are mortal."
 2. "Frogs are animals."
 3. "Raphael was an artist."
 4. "The Romans were warlike."

Academical Department.

Annual, 1884.

DIVISION III — GEOGRAPHY.

- I. What island south-east of Australia? What group of islands south of Behring Strait?
- II. Where are the following capes, and into what waters do they project:
 1. Cape Finisterre.
 2. Land's End.
 3. Cape Horn.
 4. Cape Hatteras.
 5. Cape Henlopen.
- III. Into what does the "River Nile" flow? What desert in the Chinese empire?
- IV. What is a cape, a lake, a peninsula, a strait, an isthmus?
- V. What lake between Lake Huron and Lake Erie? Where is Bangor, Boston, Philadelphia, Richmond?

Academical Department.

Annual, 1884.

LANGUAGE.

- I. What is a noun, a verb, a pronoun, an adjective?
- II. Write two sentences each illustrating the comparison of equality; of superiority; of inferiority. What is an adverb?
- III. Give the singular forms of the following nouns:
 1. "Men."
 2. "Sheep."
 3. "Trees."
 4. "Children."
- IV. Write the plural of the following nouns:
 1. "Goose."
 2. "Mouse."
 3. "Deer."
 4. "Baby."
- V. Compare "pretty," "beautiful," "industrious," "good," "bad."

Intermediate Department.

Annual, 1884.

SCRIPTURE LESSONS.

- I. What did the people do when Moses was in Mount Sinai? How did God punish the people of Canaan?
- II. Upon what were the Ten Commandments written? What is forbidden by the eighth commandment? by the ninth? What does the fifth commandment command us to do?

III. Where did Jacob die? What did he do before he died?

IV. What happened to Joseph? Where was he carried to and what did he become? Where did Isaac send Esau? What did Rebekah do?

V. Who was Lot? What happened to Lot's wife? Who were the three sons of Noah? What did Cain do to his brother?

Intermediate Department.

Annual, 1884.

UNITED STATES HISTORY.

I. What great battle was fought on the 19th of October, 1781? Between whom was a treaty of peace signed on the 3d of September, 1783?

II. Relate the plot to deliver West Point into the hands of the British. What happened at a place called "Connecticut Farms" in 1780.

III. Give a brief account of the capture of *Stony Point*. When was the "*Battle of Monmouth*" fought.

IV. Describe the "*Battle of Saratoga*," the *Battle of Bunker Hill*."

V. What was the "*Stamp Act*"? When did "*Queen Anne's War*" end? When did "*King William's War*" begin? When and how did "*King Philip's War*" end? Give a short account of the discovery of America.

Preparatory Department.

Annual, 1884.

ARITHMETIC.

I. If 7 oranges cost 28 cents, what will 3 cost? If a man travel 36 miles in 9 hours, how far will he travel in 5 hours?

II. Write the table of "United States Money," of "English Money." For what is "Apothecaries Weight" used, "Liquid Measure"? Repeat the table for "Long Measure."

III. When butter is 10 cents a pound, how many pounds can I buy for 80 cents? In one dime there are 10 cents, how many dimes in 30 cents?

IV. At 3 cents a skein, what will be the cost of 9 skeins of silk? If I owe 15 dollars and pay 6 dollars, how much do I still owe?

V. What is division, multiplication, subtraction, addition? How may numbers be expressed?

Preparatory Department.

Annual, 1884.

GEOGRAPHY.

I. On what river can you sail from Wisconsin to the Gulf of Mexico? In what direction do the rivers east of the Alleghany Mountains flow?

II. Through what territories do the Rocky Mountains extend? Which is the most north-eastern State?

III. Name the States which border on the Great Lakes? What peninsular between the bays of Campeachy and Honduras? What is a peninsular, a river, a lake?

IV. On which side of Florida is the Gulf of Mexico? On which side of Labrador is Hudson bay? On which side of Mexico is the Gulf of Mexico? What is a bay, an island?

V. In what direction does the "*Isthmus of Panama*" extend? Where is the "Gulf of California"? Where is the "United States," "New York State"? What is the capital of the United States and where is it situated?

Preparatory Department.

Annual, 1884.

LANGUAGE.

I. Build up sentences containing the eight parts of speech, beginning with the following as a foundation, viz:

1. "*Birds fly.*"
2. "*Mary sang.*"

II. What is "a conjunction," "an interjection," "a preposition," "a pronoun?"

III. 1. "Write two sentences, each containing only *two* words—a noun and an adjective."

2. "Write two, each containing only *three* words—an adjective, a noun and a verb."

3. "Write two, each containing only *four* words—an article, an adjective, a noun, and a verb."

4. "Write two, each containing only *four* words—an adjective, a noun, a verb, and an adverb."

IV. What is "a noun," "a verb," "an adverb," "an adjective."

V. Describe, in two well constructed sentences, the following animals:

1. "The lion."
2. "A wolf."
3. "A dog."
4. "A horse."

Preparatory Department.

Annual, 1884.

[Assem. Doc. No. 17.]

7

B Y-L A W S.

ARTICLE I.

Of Members.

I. Any member paying twenty-five dollars at one time shall be a life member, and as such qualified to vote for trustees.

II. Members may be elected at an annual meeting.

ARTICLE II.

I. The annual meeting of the members shall take place at the institution on the first Tuesday of February, at 2:30 o'clock in the afternoon, of which meeting the secretary shall give one week's notice in two papers published in the city of Rome.

II. Two inspectors of the election shall be appointed by the president or other presiding officer of the meeting.

III. The election of trustees shall be certified in writing by the inspectors of election, and their certificates shall be recorded in the minutes of the board.

IV. The trustees shall be divided into three classes, in such a manner that the terms of office of five shall expire each year. At every annual election the vacancies in office thus occurring shall be filled by election for three years. Vacancies in office occurring by death, resignation or refusal to serve shall be filled by the board for the unexpired term.

ARTICLE III.

Officers of the Institution.

I. The officers of the society shall be a president, two vice-presidents, a treasurer and a secretary, who shall be elected by the Board from their own number.

II. The office of secretary and treasurer may be held by the same person.

ARTICLE IV.

I. The board of trustees shall hold meetings on the Tuesday following the last Sunday in January, April, July, and October in each year at the institution, or at such other place as the board may direct, and also whenever called by the president or any three trustees. A majority of the board shall constitute a quorum for the transaction of business.

II. At the meetings of the trustees the order of business shall be as follows :

1. Reading of the minutes of the last meeting.
2. Reading the minutes of the executive committee.
3. Reports of committees.
4. Reports of the treasurer and principal.
5. Report of physician.
6. Miscellaneous business.

III. All motions or resolutions shall be presented in writing, except motions to adjourn or to take a recess.

IV. All persons appointed or employed under the authority of the board shall hold their respective employments, subject to being terminated at any time during the pleasure of the board, and the trustees shall fix the compensation of all persons appointed by them.

ARTICLE V.

Of the Executive Committee.

I. There shall be an executive committee of the trustees, appointed annually by the board at the first meeting after the annual election, consisting of five members, including the president who shall always be a member of the committee. To this committee the exercise of the powers of the board is intrusted between the meetings of the board. But no purchase, lease or sale of real estate shall be made except on the sanction of the board of trustees.

II. The executive committee shall hold a meeting at the institution on the last day of each month, except when that day falls on Sunday, when it shall be held on the day following. They shall see that all orders of the trustees are promptly carried into effect, and shall examine the bills of expenditures and certify them for payment by the treasurer, by drafts to the order of the principal. They shall examine and approve, modify or reject the bills of wants submitted by the principal. The fiscal year of the institution shall end on September thirtieth, each year.

ARTICLE VI.

Of the President and Vice-Presidents.

I. The president, or in his absence, one of the vice-presidents, shall preside at the annual meeting of the members and at all meetings of the trustees. In the absence of the president and vice-presidents, a temporary chairman shall be appointed from among the trustees present.

ARTICLE VII.

Of the Treasurer.

I. The treasurer shall have charge of all the securities and funds of the institution, and shall make such disposition of the money on hand, not needed for immediate use, as the trustees shall direct. He shall have charge of the deeds and other evidences of title belonging to the institution.

II. He shall present to the trustees at each quarterly meeting a quarterly report, and at the stated meeting in November, each year, an annual report of his accounts and of the funds of the institution.

III. He shall not pay out the money of the institution except on the draft of the executive committee.

IV. He shall always give bond, with such security or securities as the executive committee shall approve, for duly accounting for and paying over, on request of the board, the funds in his charge, and this bond shall be in the custody of the president of the board.

ARTICLE VIII.

Of the Secretary.

I. The secretary shall keep minutes of the proceedings at all the meetings of members and of the board of trustees, and record them in a book to be kept by him for that purpose, and perform such other duties as the trustees may assign to him.

II. He shall give notice of the time and place of meetings of the members of the institution and of the board of trustees.

ARTICLE IX.

I. The board may appoint an officer to be denominated the counsel of the board. He shall have the custody of all legal papers and shall be charged with the prosecution of all claims and resistance of all contested demands on the part of the institution.

ARTICLE X.

Of the Principal.

I. The board of trustees shall appoint a principal, who shall be the executive head of the institution, and shall have charge of the educational and internal affairs of the institution, subject to such directions as may from time to time be given by the board.

II. He shall regulate the course of instruction and arrangements of studies and classes, and have immediate charge of the advanced class.

III. He shall arrange and conduct all examinations and exhibitions of the pupils.

IV. He shall conduct all correspondence relative to the admission of pupils, and their education, and to the collection of money due for board and tuition and clothing of pupils, and shall pay over all received by him, for the institution, immediately to the treasurer.

V. He shall enter, in a book to be kept for that purpose, a diary of all events worthy of note relating to the institution, which book shall be the property of the trustees, and be exhibited to the executive committee and submitted to the board at its quarterly meetings.

VI. He shall conduct the daily services in the chapel, in person, and one of the religious exercises on the Sabbath.

VII. He shall frequently inspect all parts of the buildings and

premises, and lay before the executive committee such suggestions on repairs and alterations as may seem to him proper.

VIII. He shall hire, assign the duties of, direct, so far as he may deem proper, and dismiss, when he may consider it necessary, all persons whom it may be necessary to employ, not officers of the institution or appointed to places by the board of trustees.

IX. No employee shall be allowed to have any member of his or her family residing in, or at the expense of the institution.

X. He shall have power, with the approval of the executive committee, to suspend any professor, or teacher, or officer, appointed by the board of trustees, during the recess of the board.

XI. He shall attend all meetings of the board of trustees, presenting written reports at the quarterly meetings.

XII. He may speak on any matter under discussion.

XIII. He shall have power, temporarily, to suspend a pupil of the institution whenever he may deem it necessary for the maintenance of discipline, and he shall promptly report all such cases of suspension to the president of the board, whereupon the president shall call a special meeting of the executive committee, as soon thereafter as practicable, to take such action in the case as they may deem advisable. No pupil shall be expelled from the institution, for any alleged violation of its rules, without having the privilege of being heard by the executive committee in his defense.

ARTICLE XI.

Of the Physician.

The physician shall be appointed annually by the board. He shall visit the institution daily, or as often as is necessary or required, make up recipes when required for the sick, and perform such other duties in the line of his profession as the principal or executive committee may require. He shall report on the state of his department quarterly, or oftener, if required, and make any suggestions he deems proper regarding sanitary regulations and attention to the health of the pupils.

ARTICLE XII.

Of the Pupils.

I. Every pupil who has not been vaccinated before being received into the institution shall be vaccinated without delay.

II. Pupils honorably dismissed from the institution shall receive a certificate signed by the principal.

III. No pupil shall be excused from recitation, attendance in the chapel, or during the hours of study, except by permission in writing from the principal, and no pupil shall be absent from the institution without his leave in writing.

IV. Pupils shall not be allowed to retain any pocket money, but, on admission, shall deliver the same to the principal, who shall cause it to be credited on the books of the institution, and returned in such sums as he may deem advisable.

ARTICLE XIII.

Of the Steward, Matron and Housekeeper.

The board of trustees shall appoint a steward, a matron, and a housekeeper, who, with such assistants as may be needed, shall discharge the duties appropriate to their respective offices, under the general direction of the principal.

ARTICLE XIV.

Of the Accountant and Supervisor.

I. The board of trustees shall appoint an accountant and a supervisor. The accountant shall keep a complete record of the financial transactions of the institution. He shall submit to the treasurer a statement of the condition of the various accounts once in every three months, or whenever requested by the board or executive committee. This office may be filled by a professor or teacher of the institution.

II. The supervisor shall have charge of the boys, out of school, and during the hours of study, under the direction of the principal, and shall perform such other duties as he may prescribe. This office may be filled by a professor or teacher of the institution.

ARTICLE XV.

Of Examinations.

There shall be an annual examination of the pupils on the last day of the term, and on such days as the trustees may, from time to time, appoint.

ARTICLE XVI.

Of the Vacation.

There shall be a vacation from the last Wednesday of June to the third Wednesday in September, and no other vacation unless otherwise directed by the board.

ARTICLE XVII.

The trustees may, at any time, at a regular quarterly meeting, alter, amend or add to these by-laws.

TERMS OF ADMISSION.

I. The institution provides for pupils in all respects, traveling expenses, and, in the case of State and pay pupils, clothing excepted, at the rate of \$300 per annum. Clothing will be furnished by the institution, if desired, at an additional charge. "Payments must be guaranteed. Day pupils will be received at a charge of \$100 per annum, including books and stationery, payable semi-annually in advance."

II. The regular time of admission is at the commencement of the term, which begins the first Wednesday of September. Pupils are received at no other time, except in extraordinary cases.

III. No deduction will be made from the annual charge in consequence of absence on any account whatever, except sickness, nor for the vacation.

IV. Satisfactory security will be required for the punctual payment of bills, and the suitable clothing of the pupils. In the case of pupils supported by their parents or friends a bond may be required, the form of which is annexed to this report.

V. The selection of pupils over twelve years of age, to be supported at the public expense, is made by the Superintendent of Public Instruction at Albany, to whom communications on this subject can be addressed.

Parents having deaf-mute children under twelve years of age and over six may secure their admission to the institution as county pupils by the certificate of an overseer of the poor or supervisor of the county.

VI. Should objection exist to the admission of any individual, the board reserve to themselves, or their officers, a discretionary power to reject the application.

The above terms are to be understood as embracing the entire annual expense to which each pupil is subjected. Stationery and necessary school books are furnished by the institution. No extra charge is made, in case of sickness, for medical attendance, medicine or other necessary provisions.

It is suggested to the friends of deaf-mute children, that the names of familiar objects may be taught them with comparative ease before their admission, and that the possession of such knowledge in any degree materially facilitates their subsequent advancement. To be able to write an easy hand, or at least to form letters with a pen, is likewise a qualification very desirable. In reference to this subject, it is recommended that the words which constitute writing lessons, or *copies*, preparatory to admission, should be such as have been previously made intelligible to the learner.

In the case of each pupil entering the institution, it is desirable to obtain written answers to the following questions. Particular attention to this subject is requested :

1. Name of pupil in full.
2. Residence, town, county, State.

3. When was he born ?
4. Where was he born ?
5. Was he born deaf ?
6. At what age was hearing lost ?
7. By what disease or accident did he become deaf ?
8. Is the above the physician's opinion ?
9. Is the deafness total or partial ?
10. Have any attempts been made to remove the deafness, and, if so, by whom and with what result ?
11. Have any attempts been made to communicate instruction ?
12. Is there any ability to articulate or read on the lips ?
13. Is he cleanly or otherwise in his habits ?
14. Has he had any acute disease or received any bodily injury ?
15. Is he laboring under any bodily infirmity, defective vision, eruption, malformation of limbs, glandular swelling, rupture, epilepsy, chorea or palsy ?
16. Has he shown any signs of mental imbecility, idiocy, or insanity ?
17. Has he ever used ardent spirits, opium or tobacco ?
18. Has he ever been vaccinated or had the small-pox ?
19. Has he had the scarlet fever ?
20. Has he had the measles ?
21. Has he had the mumps ?
22. Has he had the whooping cough ?
23. Has he shown marked taste for any particular trade or business, or been accustomed to regular employment ?
24. Are there any other cases of deafness in the family, among relatives or ancestors ?
25. What is the name of the father ?
26. Where was he born ?
27. What is the name of the mother ?
28. Where was she born ?
29. What is the name and post-office address of the correspondent ?
30. What is the occupation of the father ?
31. Have either of the parents died ?
32. Has a second connection been formed by marriage ?
33. Were the parents related before marriage — *e. g.*, cousins ?
34. What are the names and ages of their children ?
35. What has been the pecuniary condition of the parents ? Indigent ? Easy circumstances ? Affluent ?
36. Has he any special mark or peculiarity of appearance ?
37. Color, color of eyes, stature, color of hair ?
38. By whom is this information given ?

VII. Application regarding the admission or dismissal of pupils, and correspondence with reference to their support, health, education, and all matters pertaining to them, should be addressed to the principal of the institution.

E. B. NELSON,
Rome, N. Y.

LAWS AND BLANK FORMS

RELATING TO THE ADMISSION OF PUPILS.

CHAPTER 325, LAWS OF 1863.

As amended by chapter 213, entitled "An act relative to the care and education of deaf-mutes."

PASSED April 29, 1875.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. Whenever a deaf-mute child, under the age of twelve years, shall become a charge for its maintenance on any of the towns or counties of this State, or shall be liable to become such charge, it shall be the duty of the overseer of the poor of the town, or of the supervisors of such county, to place such child in the New York Institution for the Deaf and Dumb, or in the Institution for the Improved Instruction of Deaf-Mutes, or in the Le Couteulx St. Mary's Institution for the Improved Instruction of Deaf-Mutes in the city of Buffalo, or in the Central New York Institution for Deaf-Mutes in the city of Rome, or in any institution of the State for the education of deaf-mutes.

§ 2. Any parent, guardian or friend of a deaf-mute child within this State, over the age of six years and under the age of twelve years, may make application to the overseers of the poor of any town, or to any supervisor of the county where such child may be, showing, by satisfactory affidavit or other proof, that the health, morals or comfort of such child may be endangered, or not properly cared for, and thereupon it shall be the duty of such overseer or supervisor to place such child in the New York Institution for the Deaf and Dumb, or in the Institution for the Improved Instruction of Deaf-Mutes, or in the Le Couteulx St. Mary's Institution for the Improved Instruction of Deaf-Mutes in the city of Buffalo, or in the Central New York Institution for Deaf-Mutes in the city of Rome, or in any institution in the State for the education of deaf-mutes.

§ 3. The children placed in said institution, in pursuance of the foregoing sections, shall be maintained therein at the expense of the county from whence they came, provided that such expense shall not exceed \$300 each, per year, until they attain the age of twelve years, unless the directors of the institution to which the child has been sent shall find that such child is not a proper subject to remain in said institution.

§ 4. The expenses for the board, tuition and clothing for such deaf-mute children, placed as aforesaid in said institutions, not ex-

ceeding the amount of \$300 per year, above allowed, shall be raised and collected as are other expenses of the county from which such children shall be received ; and the bills therefor, properly authenticated by the principal, or one of the officers of the institution, shall be paid to said institution by the said county ; and its county treasurer or chamberlain, as the case may be, is hereby directed to *pay the same on presentation*, so that the amount thereof may be borne by the proper county.

§ 5. This act shall take effect immediately.

CHAPTER 13.

AN ACT in relation to the Central New York Institution for Deaf-Mutes, at Rome.

PASSED February 4, 1876 ; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. The Central New York Institution for Deaf-Mutes, at Rome, is hereby authorized to receive deaf and dumb persons, between the ages of twelve and twenty-five years, eligible to appointment as State pupils, and who may be appointed to it by the Superintendent of Public Instruction, and the Superintendent of Public Instruction is authorized to make such appointment to the aforesaid institution, and, in his discretion, to date back the first thirty appointments to the first day of October, eighteen hundred and seventy-five.

CHAPTER 335.

AN ACT relating to the Central New York Institution for Deaf-Mutes, at Rome, New York.

PASSED May 21, 1880 ; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. It shall be lawful for the Superintendent of Public Instruction to continue at the Central New York Institution for Deaf-Mutes, at Rome, New York, for a period not exceeding three years, for the purpose of pursuing a course of studies in the higher branches of learning, such pupils, not exceeding twelve in number, as may have completed their full term of instruction and who may be recommended by the trustees of said institution.

§ 2. This act shall take effect immediately.

APPLICATION

FOR THE ADMISSION OF COUNTY PUPILS.

To be made and retained by the Supervisor or Overseer of the Poor.

STATE OF NEW YORK, }
County of , } ss. :

....., of the town of....., in said county, hereby certifies that he is the.....of....., a deaf-mute child, residing in said town, and who was born on the..... day of....., 18 , and that in consequence of the want of education, the health, morals and comfort of said child may be endangered or not properly cared for; and the undersigned hereby makes application for the said child to be placed in the Central New York Institution for Deaf-Mutes, for support and education, pursuant to chapter 325 of the Laws of 1863, as amended by chapter 213 of the Laws of 1875.

Dated....., 18 .

.....

CERTIFICATE.

To be granted by Supervisor or Overseer of the Poor, and sent to the Institution.

STATE OF NEW YORK, }
County of , } ss. :

I have this day selected....., of the town of..... county of....., son [or daughter] of....., who was born on the.....day of.....,18 , as a county pupil, in the Central New York Institution for Deaf-Mutes, for the term of... ..years, from the.....day of.....18 , to the.....day of.....18 , (he being then twelve years of age), to be educated and supported therein, during that period, at the expense of the county of....., in conformity with the provisions of chapter 325, Laws of 1863, as amended by chapter 213 of the Laws of 1875.

Dated....., 18 .

..... }
..... of the town of
.....

FORM OF APPLICATION.

To be sent to the Superintendent of Public Instruction, Albany, in case of candidates for admission twelve years of age or over.

The undersigned.....of the town of.....in the county of....., do hereby certify that.....of said town, is deaf and dumb. The said.....was.....years of age on the.....day of.....18 ; is of good moral character,

free from disease, and possesses intellectual faculties capable of instruction.

The names of the parents of the said.....are.....and the said parents have resided in this State for the last three years. They respectfully apply for the appointment of said.....as a State pupil in the Central New York Institution for Deaf-Mutes; and I would recommend the application to the favorable consideration of the Superintendent of Public Instruction. The parents are unable to provide the said.....with clothing.*

Dated....., 18 ..

..... }
 } of the town of

To the Superintendent of Public Instruction, Albany.

FORM OF BOND.

Know all men by these presents, that we.....ofin the county of.....and State of.....and.....ofin the county of.....and State of.....are held and firmly bound unto.....the treasurer of the Central New York Institution for Deaf-Mutes, and his successors in office, in the sum of.....dollars, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, jointly and severally, firmly by these presents.

Sealed with our seals. Dated at.....this.....day of.....A. D....

Whereas.....of.....in the county ofand State ofhas been or is about to be admitted as a pupil in the institution aforesaid:

Now, therefore, the condition of this obligation is such that if the above-named obligors shall well and truly pay during the continuance of the said.....as such pupil the sum of three hundred dollars per annum for....board and tuition, semi-annually in advance, and shall also pay on demand all sums charged to the account of said.....for money or necessary articles furnished to said.....; and shall also pay interest on each bill, from and after the time it shall become due, then this obligation to be void, otherwise to remain in full force and virtue.

Sealed and delivered in { [L. s.]
 presence of { [L. s.]

SITUATION OF THE INSTITUTION.

The institution is located very centrally in the State, at Rome, in Oneida county, New York and is easy of access from all points

* In case the parents are able to provide clothing, the above sentence should be erased.

on the Central railroad. It is reached from northern points of the State by the Rome, Watertown and Ogdensburg railroad, and from the southern and southern central counties by the Delaware, Lackawanna and Western railroad to Utica or Syracuse, and thence by the Central.

The buildings are located on Madison street, in a pleasant and healthy vicinity, about twenty minutes' walk from the depot.

SIXTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

Binghamton Asylum for the Chronic Insane,

BINGHAMTON, N. Y.,

For the Year 1884.

TRANSMITTED TO THE LEGISLATURE JANUARY 15, 1885.

ALBANY:
WEED, PARSONS AND COMPANY.
LEGISLATIVE PRINTERS.
1885.

OFFICERS OF THE ASYLUM.

TRUSTEES.

T. R. MORGAN, <i>President</i>	Binghamton.
H. G. RODGERS, <i>Secretary</i>	Binghamton.
R. A. FORD	Binghamton.
E. O'CONNOR	Binghamton.
E. ROSS	Binghamton.
ALEX. CUMMING	Binghamton.
CHARLES DAVIS	Binghamton.
JOHN RANKIN	Binghamton.
S. D. HALLIDAY	Ithaca.
F. O. CABLE	Owego.
GEO. TRUMAN	Owego.

TREASURER.

JEROME DE WITT	Binghamton.
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RESIDENT OFFICERS.

THEO. S. ARMSTRONG, M. D.	<i>Superintendent.</i>
CHAS. C. EASTMAN	<i>First Assistant Physician.</i>
O. J. WILSEY	<i>Second Assistant Physician.</i>
EDWIN EVANS	<i>Steward.</i>
Mrs. L. S. SMITH	<i>Matron.</i>

STATE OF NEW YORK.

No. 18.

IN ASSEMBLY.

JANUARY 15, 1885.

SIXTH ANNUAL REPORT OF THE TRUSTEES OF THE BINGHAMTON ASYLUM FOR THE CHRONIC INSANE.

To the Legislature of the State of New York :

The Trustees of the Binghamton Asylum for the Chronic Insane herewith transmit to your honorable body their sixth annual report, together with the reports of the superintendent and other officials of the institution. This asylum was opened for the reception of patients in October, 1881.

The close of the first fiscal year found us with one hundred and forty-six males and one hundred and twenty-nine females ; total, two hundred and seventy-five.

Our admissions for the second fiscal year numbered males, one hundred and three, females one hundred and eight ; total, two hundred and eleven, which gave us at the commencement of the year just past four hundred and twenty-four patients.

September 30, 1884, found us with two hundred and eighty-two males and two hundred and ninety-eight females ; total, five hundred and eighty. This steady and rapid increase argues well for the future enlargement of our institution.

In order to meet the pressing demands of our State for the proper care and maintenance of the chronic insane, the trustees and officers of this institution have endeavored faithfully to do their best with the means at their command. Accommodations have been improvised from time to time as occasion required, and we now feel as though we had nearly reached our limit ; hence we appeal to the Legislature of the Empire State to make such appropriations, and such only as humanity and true economy demand.

Within the year just past, the northern extension formerly occupied as sleeping apartments for employees, also for carpenter and

paint shops has been converted into wards suitable for male patients. The ground floor only has as yet been remodeled, and it now accommodates some thirty inmates. The superintendent has called our attention to the very feasible plan of raising this extension another story, thus making room for thirty more male patients, which will correspond with the southern extension in which we now have some sixty females.

Of the \$20,000 appropriated by chapter 491, Laws of 1883 for erecting a detached building, there has been expended as follows:

For advertising	\$81 51
For digging foundation.....	364 50
For general contract	16,061 26
Plumbing and steam fitting	2,213 03
Approach and piazza.....	365 05
I. G. Perry, architect	545 72
Total	<u>\$19,631 07</u>

This leaves a balance of \$368.93 to be expended in painting inside walls, etc.

This building was completed in accordance with the plans and specifications and it was ready for occupancy last July. We at once removed our most refractory and disturbed females to the first ward, and the filthy ones to the upper ward. We at present have some thirty of each class in this building which fills it to its utmost capacity. At the time of our moving into this detached building, our wards in the south wing were greatly relieved, and the change was a very agreeable one to the officers and to the patients remaining in the main building. Soon new recruits began to arrive and now we are again taxed to our utmost, and in every ward in the building numbers of patients are sleeping on the floor. A small frame house formerly occupied by the gardener has also been utilized for patients. In it we have some ten or twelve of our quiet and working men. We are at this time enlarging these quarters, and soon we hope to have twenty-five or thirty patients comfortably housed beneath its roof. In the present condition of things we cannot keep pace with the demands upon us for farther accommodations. There are no more buildings on the premises that can be utilized for patients, and the time has come when if we enlarge our borders the Legislature must appropriate means for the erection and furnishing of suitable buildings.

This matter of caring for the insane of our State is a very important one, and it demands at your hands thoughtful consideration. One thing is certain, the asylum accommodations for the chronic insane are not sufficient to meet the needs of the present hour. This unfortunate class is rapidly increasing, and some means must be devised for their care and maintenance.

Some years ago our State devised a plan of its own for the ameli-

oration of the chronic pauper insane, that were at that time scattered throughout our county houses. The outgrowth of that scheme was Willard Asylum, which now has within its walls over eighteen hundred insane.

The work done by this asylum has more than justified the wisdom and judgment of its projectors, and to-day it stands a noble monument of the humanitarian progress of our State.

Binghamton Asylum has been modeled on a similar plan, and to-day it presents to your honorable body the sixth annual report of its different officers, to which we invite your careful attention.

The table of statistics pertaining to the medical administration gives as full and accurate particulars as can be compiled from data at our command. In most cases the history accompanying patients is very meagre, but we believe that, after admission to the asylum, the records are fully and accurately kept.

The reports of the treasurer, steward and matron give in detail the transactions for the year, and we feel as though they make a very commendable showing. The item of labor performed by the inmates is also an important factor, both in the economy of the institution, and in the mental and physical condition of the patients. We call your attention to the appropriation asked by us and approved by the State Board of Charities for the erection of two new buildings. The plans have been carefully matured, and they commend themselves heartily to our board. Should this project be acted upon early and favorably by your Legislature, and should it be approved by the Executive, the beginning of another asylum year would find us able to provide for eight hundred patients. So far as location is concerned, it seems to us that Binghamton Asylum has superior natural advantages, and certainly we have room to extend our borders. If it be the plan of the State to care for the insane in asylums, would it not be wise economy to increase the capacity of this institution? As to the various other items asked for in our budget, we would remark, that they have been carefully considered by the resident officers of the institution, together with the building superintendent and trustees, and it is their unanimous opinion that the amounts asked for are no more than the necessities of the asylum demand, and we invite close and searching scrutiny to the same.

So far as the internal administration of the asylum is concerned, we have endeavored to inform ourselves thoroughly from time to time. We have made frequent and thorough visitations of the buildings and wards. We have examined the books and papers of the institution, and we have no hesitancy in saying that we regard the management judicious, humane and as economical as is consistent with the welfare of the patients.

We point with pride to our farm and its products. But a few years ago it was considered a barren and sterile waste. No one thought it could ever be made a source of income. By constant cultivation and a judicious use of fertilizers it has been brought to a state of productiveness that helps materially to support the patients, and at the same time it gives them the healthful work and

exercise so necessary to their mental and physical development. Whatever money is expended on farm, farm stock and farm buildings we consider a good investment, and a wise economy would foster the agricultural interests of the asylum. During the last year a convenient and commodious farm barn has been erected. This will prove of great service to us in storing our crops and in sheltering our stock.

We are greatly in need of a horse barn, as the one in present use is very much out of repair, and not at all adapted to the wants of the institution. Among the items mentioned in the report of our superintendent are some that we consider of paramount importance. A vegetable cellar is a sanitary necessity, as is also the removal of the laundry from its present location. Some means must be devised for lighting our various buildings. We have outgrown our present facilities, and something must be done, and that soon, to furnish us safe and reliable light. Arrangements should be made either for putting in the electric light or for manufacturing our own gas from coal. We have the subject under consideration at the present time, and whichever plan is the more feasible, that is the one we hope to adopt. The purchase of more land is a question that merits consideration. As we grow in numbers, the more help we have that can be profitably employed in out-door labor. As we have said before, this employment of the insane is a remedial measure of great value, and at the same time it materially reduces the cost of maintenance. Milk is a most suitable and a very necessary article of diet for our patients; and more cows are needed to supply our immediate wants. Experience has proved that commercial fertilizers greatly increase the productiveness of our soil, and a liberal expenditure in this direction is wise economy. A good and substantial smoke-house is also among the things we greatly need. In order to do good and efficient service, our carpenters, plumbers and steam-fitters should be provided with proper tools and appliances to carry on their craft.

We would call your attention to that part of the superintendent's report in which he speaks of erecting a building for laundry purposes and for a new boiler-house. The reasons given are good and valid, and the plan recommended seems a very feasible one. The item of furniture must again be brought to your notice. Even with our present numbers we are greatly in need of bedsteads and bedding to make our patients comfortable.

This will require money, and as we have no surplus from which to draw, we must appeal to the Legislature for this purpose.

The bleak winds of winter again impress the officers of the asylum with the necessity of inside windows. The heating apparatus works well, and it is doing its full duty, but they are convinced that no amount of heat will suffice to keep the wards comfortable, with strong winds blowing from certain directions, unless said wards are supplied with double windows. Comfort and economy alike demand that this be done. Should the new buildings in contemplation be erected, and should it be deemed expedient to heat them from our

boilers at the river, we would be obliged to substitute a larger steam pipe from the boiler-house to the main building. The pipe now in use could be utilized for conveying steam from the main pipe to the new buildings; but its capacity is not sufficient to conduct the amount of steam from the river necessary to heat these additional new buildings. This would necessitate quite an outlay in money, and it is one of the items asked for in our appropriation. New boilers will also be necessary to generate the requisite amount of steam, as the ones in present use are no more than adequate to our immediate wants. The superintendent has but two physicians to assist him in caring for the six hundred patients in the asylum. We think that a third assistant should be appointed, and we respectfully ask that an appropriation for the payment of officers' salaries be so increased as to meet this additional expense.

At the close of this report you will find an itemized statement of the amounts asked for and the purposes for which we ask them. We think that they will bear careful scrutiny, and we and we trust they will commend themselves to your favorable consideration. We, who are conversant with the wants of this institution, speak feelingly on the subject. At the writing of this report January 10, 1885, we have six hundred and twenty patients. We are full to overflowing, and still they come. Our accommodations are far from ample for our present number, but patients have been crowded upon us, and we have continued to receive them long after we considered our institution full. The time has come when some immediate action must be taken. We must either close our doors against this unfortunate class, or the State must make appropriations to erect and furnish new buildings for their accommodation. We have done our duty in presenting this subject to your honorable body, and we doubt not it will meet proper consideration.

In closing this report we wish to acknowledge the efficiency and faithfulness that have characterized the different officers of the asylum in the discharge of their various duties. We feel that they have been faithful to their trust and zealous for the welfare of the institution. Our building superintendent, Mr. I. G. Perry, has ever been ready and willing to assist us with his counsel and his labors. We wish to thank him and his assistants for the practical interest they have taken in our behalf. We also extend thanks to the Commissioner in Lunacy and to the State Board of Charities for the kindly spirit manifested to us, and we hope for a continuance of the same in the future.

We respectfully request the Legislature and the Executive to provide for the following items at this present session :

Carriage-house	\$3, 500 00
Boiler-house and laundry.....	6, 000 00
For illuminating the buildings.....	8, 500 00
For smoke-house.....	250 00
Farm and garden implements.. ..	730 00

Laundry machinery.....	\$1,000 00
Safe	500 00
General furnishing (for buildings occupied by patients at present time).....	2,500 00
Furniture for new buildings.....	6,000 00
For paving with brick air duct and sub-cellar.....	1,000 00
Medical books and surgical investments.	450 00
Mechanics' tools.....	300 00
One small engine.....	500 00
Vegetable cellar.....	2,100 00
Two boilers for heating new buildings.....	3,000 00
	<hr/>
	\$36,330 00
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The State Board of Charities will report their resolution to your honorable body, recommending that an appropriation be made sufficient to put up buildings for the accommodation of three hundred patients.

Dated *January* 10, 1885.

TRACY R. MORGAN, *Chairman*,
HARRIS G. RODGERS, *Secretary*,
RODNEY A. FORD,
E. ROSS,
F. O. CABLE,
CHARLES DAVIS,
ALEX. CUMMING,
GEORGE TRUMAN.

REPORT OF THE TREASURER

FOR THE YEAR BEGINNING OCTOBER 1, 1883, AND ENDING
SEPTEMBER 30, 1884.

To the Honorable the Auditing Committee of the Board of Trustees:

GENTLEMEN — I have balanced my books on the last day of September, 1884, as required by law, and the following is a statement of the balances thereof and an abstract of the receipts and payments of the preceding year, to-wit :

REPORT of the Treasurer of the Binghamton Asylum for the Chronic Insane for the quarter beginning October 1, 1883, and ending December 31, 1883.

RECEIPTS.

To brought from last quarter, county funds.....	\$152 31
“ “ sundry sales.....	147 58
“ “ furnishing.....	237 84
“ “ comptroller.....	3,923 05
“ “ detached building. ...	2,964 25
Total.....	<u>\$7,425 03</u>
By carried forward to appropriate accounts.....	<u>\$7,425 03</u>

COUNTY FUNDS.

1883.

Oct. 1.	To amount bro't over as above..	\$152 31
	To amount received from—	
9.	Chenango county.....	106 49
10.	Madison county.....	334 00
	Delaware county.....	276 49
	Cayuga county.....	108 26
	Poughkeepsie city.....	340 72
11.	Otsego county.....	449 65
	Ulster county.....	564 70
	Essex county.....	79 42
	Queens county.....	115 17
13.	Rockland county.....	198 00
	Tioga county.....	525 56
	Greene county.....	598 76

1883.

To amount received from —			
Oct. 15.	Columbia county.....	\$519	47
	Delaware county.....	346	26
	Rensselaer county.....	1,711	21
	Sullivan county.....	189	55
	Suffolk county.....	492	69
	Orange county.....	440	66
23.	Washington county.....	39	43
	State of New York.....	498	29
30.	Cortland county.....	25	75
	Schuyler county.....	34	83
Nov. 1.	Steuben county	1,048	10
	Westchester county.....	2,939	90
12.	Dutchess county.....	632	57
14.	Kingston city.....	70	51
	Richmond county	246	98
	Columbia county	284	54
	P. K. Burhans	100	00
19.	Broome county.....	144	24
24.	Albany county.....	2,191	10
Dec. 4.	Fulton county.....	219	26
		<hr/>	
		\$16,024 87	

Furnishing.

Oct. 1.	To am't bro't over last quarter.....	237	84
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Sundry Sales.

Oct. 1.	To am't bro't over last quarter..	147	58
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Comptroller.

Oct. 1.	To am't bro't over last quarter..	\$3,923	05
Nov. 21.	To am't rec'd from Comptroller, detached building	3,000	00
	To am't rec'd from Comptroller, boiler-house	3,000	00
Dec. 10.	To am't rec'd from Comptroller, boiler-house	2,000	00
	To am't rec'd from Comptroller, current expenses.....	2,000	00
24.	To am't rec'd from Comptroller, detached building.....	5,000	00
		<hr/>	
		18,923 05	

Official Salaries.

Oct. 8.	To rec'd from State Treasurer..	\$1,637	50
Dec. 12.	To rec'd from State Treasurer..	75	00
		<hr/>	
		1,712 50	

Detached Building.

1883.

Oct. 1.	To amount brought over from last quarter,	
	as above	\$2,964 25
		<hr/>
		\$40,010 09
		<hr/>

DISBURSEMENTS.

Current Expense.

Date.	Voucher.	NAME.	
1883.			
Oct. 1.	1. Paid	J. Bump	\$50 31
	2.	Edwin Evans	141 06
10.	4.	Pay-roll	1,634 08
23.	55.	J. Bump	187 61
29.	3.	James H. Wells	152 72
	5.	Leggett & Co.....	238 62
	6.	L. B. Phillips	15 60
	7.	S. Burkhalter & Co.	69 23
	8.	Bramhall, Deane & Co.....	58 25
	9.	Campbell & Co.....	39 60
10.		H. K. Thurber & Co.....	107 47
11.		Diamond Match Co.	11 25
12.		Woven Wire Co.....	12 00
13.		Holly Manufacturing Co.....	3 88
14.		A. W. Palmer.....	12 82
15.		Sayles & Pratt	5 50
16.		Carter & Babcock.....	74 18
17.		H. A. Smith	3 20
18.		A. S. Patten & Bro.....	177 87
19.		Kendall, Clock & Co.....	4 50
20.		D. R. Grant	20 41
21.		A. Gregg & Son.....	80 00
22.		Saunders & Taylor.....	551 20
23.		D. L. Brownson.....	50 70
24.		Stone & Sanders.....	29 68
25.		D. M. & E. G. Halbert.....	77 09
26.		H. B. Claflin & Co.....	123 97
27.		Leet & Son.....	332 86
28.		L. J. Garnsey.....	14 25
29.		Marks & Clark.....	97 14
30.		L. Doolittle.....	39 75
31.		Bean & Co.....	20 27
32.		A. J. Lyon.....	9 02
33.		F. P. Costello.	30 10
34.		David Lyons.....	12 00

Date.	Voucher.	NAME.	
1883.			
Oct. 29.	35. Paid	R. H. Meagley.....	\$26 25
	36.	Lester Bros. & Co.....	72 00
	37.	Conklin & Mersereau.	9 94
	38.	H. W. Chubbuck & Co.....	7 50
	39.	John R. Clark.....	36 63
	40.	Bing. Oil Ref'ng Co.....	7 00
	41.	Shapley & Wells.....	42 87
	42.	Meagley & Blanchard.....	127 29
	43.	B. H. Nelson.....	2 55
	44.	Theron Hoadley.....	11 75
	45.	Otis Brothers.....	50 00
	46.	Bing. Hardware Co.....	12 38
	47.	S. Mills, Ely & Co.....	65 72
	48.	V. W. Ford.....	24 05
	49.	A. S. Minor.....	18 16
	50.	Hirschman Brothers.....	43 25
	51.	Telephone & Telegraph Co.....	8 00
	52.	Chas. E. Lee.....	29 68
	53.	G. B. Hollister.....	31 07
	54.	J. W. Shear.....	62 14
	56.	H. B. Claflin & Co.....	283 87
Nov. 3.	59.	Edwin Evans.....	201 77
8.	113.	N. Y., L. E. & W. R. R. Co....	54 28
10.	60.	Pay-roll	1,627 74
15.	57.	J. Bump.....	77 25
	115.	J. Bump.....	115 35
	83.	J. Bump.....	29 40
19.	58.	W. A. Tyler.....	75 15
	61.	Sayles & Pratt.....	90 25
	62.	Lorig & Webber.....	698 75
	63.	Huntington & Dorn.....	75 62
	64.	Burkhalter & Co.....	49 00
	65.	Leggett & Co.....	22 40
	66.	H. H. Thurber & Co.....	71 99
	67.	H. Kohnstaum & Co.....	77 70
	68.	Bramhall, Dean & Co.....	5 55
	69.	A. W. Palmer.....	435 00
	70.	Pratt Manuf'g Co.....	239 21
	71.	J. L. Mott Iron Works.....	1 92
	72.	J. H. Warner.....	12 00
	73.	Carl & Spaulding.....	8 00
	74.	A. J. Lyon.....	72 48
	75.	E. F. Jones.....	70 00
	76.	Jerome DeWitt.....	4 57
	77.	Persels, Nichol & Mack.....	6 50
	78.	Jesse Jansen.....	23 46
	79.	H. H. Dennison.....	9 00

Date.	Voucher.	NAME.	
1883.			
Nov. 19.	80. Paid	Anderson, Gregg & Son.....	\$71 75
	81.	E. F. Bloomer.....	23 10
	82.	Binghamton Hardware Co.....	5 00
	84.	S. Mills Ely.....	69 64
	85.	Hirschmann Bros.....	62 28
	86.	Kendall, Clock & Co.....	5 50
	87.	A. H. Leet & Son.....	112 74
	88.	R. W. Mosher.....	2 80
	89.	A. S. Miner.....	10 75
	90.	Saunders & Taylor.....	204 67
	91.	Stone & Sanders.....	5 50
	92.	D. L. Brownson.....	59 78
	93.	Bates & Johnson.....	6 00
	94.	Bean & Co.....	33 70
	95.	H. W. Chubbuck & Co.....	6 83
	96.	L. Doolittle.....	45 20
	97.	G. B. Hollister.....	21 04
	98.	D. Lyons.....	13 64
	99.	Meagley & Blanchard.....	372 41
	100.	Otis Bros.....	17 22
	101.	Carter & Babcock.....	64 79
	102.	G. W. Gale.....	108 79
	103.	Barrett Bros.....	4 00
	104.	D. M. & E. G. Halbert....	56 06
	105.	W. S. Smith & Sons.....	22 15
	106.	A. S. Patten & Bro.....	88 49
	107.	Geo. S. Perry & Co.....	5 57
	108.	L. B. Phillips.....	99 60
	109.	V. W. Ford.....	27 66
	110.	Marks & Clark.....	141 62
	111.	Matthews & Co.....	20 90
	112.	D. R. Grant.....	30 70
	22. 117.	Pay-roll.....	26 25
	23. 562.	A. C. Thompson.....	20 93
Dec. 3.	116.	Henry Hoskins.....	205 00
	5. 114.	C. W. Ingersoll.....	220 09
	6. 119.	Edwin Evans.....	78 93
	10. 177.	Pay-roll.....	174 43
	127.	V. W. Ford.....	562 10
	118.	Pay-roll.....	1833 64
	13. 129.	J. Bump.....	159 15
	15. 153.	D. M. & E. G. Halbert.....	199 91
	178.	Riley Brothers.....	325 00
	140.	G. C. Mason.....	79 35
	22. 502.	Bates & Johnson.....	165 21
	585.	C. Waterman.....	34 00
	120.	Carter & Babcock.....	127 68

Date.	Voucher.	NAME.	
1883.			
Dec. 22.	121.	Paid F. H. Leggett & Co.....	\$133 36
	122.	Agner & Gaston.....	28 54
	123.	L. W. Loomis.....	27 75
	124.	Sayles & Pratt.....	36 00
	125.	Shapley & Wells.....	14 41
	126.	Mattimore & Co.....	24 05
	128.	N. Y. & Pa. Tel. & Tel. Co....	8 00
	130.	H. B. Darrow.....	10 84
	131.	Bennett, Butler & Co.....	142 35
	132.	Bates & Johnson.....	16 80
	133.	H. K. Thurber & Co.....	248 06
	134.	H. B. Claflin & Co.....	261 06
	135.	Bergin & Jones.....	440 40
	136.	H. Kohnstamm & Co.....	82 73
	137.	H. H. Dunmore.....	10 00
	138.	C. W. Ingersoll.....	158 10
	139.	F. S. Jarvis & Co.....	44 52
	141.	Binghamton Oil Ref. Co.....	195 46
	142.	Evans & Ackerman.....	232 40
	143.	Wm. Pugsley.....	5 99
	144.	O. Shapley.....	10 28
	145.	L. Doolittle.....	27 71
	146.	S. Mills Ely & Co.....	65 20
	147.	Kendall, Clock & Co.....	5 50
	148.	A. J. Lyon.....	61 91
	149.	C. D. Middlebrook.....	32 02
	150.	A. Gregg & Son.....	72 20
	151.	Bean & Co.....	27 20
	152.	Carl & Spaulding.....	6 00
	154.	Bing. Pub. Co.....	6 00
	155.	F. P. Costello.....	31 73
	156.	L. I. Garnsey.....	5 20
	157.	D. L. Brownson.....	16 39
	158.	G. B. Hollister.....	43 44
	159.	Bartlett Bros.....	65 09
	160.	Danl. Lyons.....	59 67
	161.	Marks & Clark.....	46 56
	162.	Meagley & Blanchard.....	314 79
	163.	A. S. Miner.....	13 61
	164.	T. E. Porter.....	8 15
	165.	Stone & Sanders.....	89 05
	166.	Shapley & Wells.....	839 00
	167.	Edwards Bros. & Co.....	282 35
	168.	Chas. E. Lee.....	32 55
	169.	D. R. Grant.....	30 62
	170.	Otis Bros.....	14 60
	171.	W. S. Smith & Sons.....	17 57

Date.	Voucher.	NAME.	
1883.			
Dec. 22.	172.	Paid A. S. Patten & Bro.....	\$57 44
	173.	Geo. S. Perry & Co.....	9 77
	174.	Shapley & Wells.....	97 93
	175.	Sisson Bros. & Welden	46 15
	176.	Hirschman Bros	14 52
26.	179.	Wm. Murphy	250 90
27.	503.	J. & R. H. Walker.....	203 50
31.	180.	J. Bump.....	46 50
	181.	Pay-roll.....	228 57

\$20,946 60

Detached Building.

Oct. 11.	3.	Paid H. B. Ogden.....	\$2,000 00
Dec. 18.	5.	H. B. Ogden.....	5,000 00
22.	4.	Bing. Pub. Co.....	16 88
			7,016 88

Boiler-House.

Nov. 6.	1.	Paid H. B. Ogden.....	\$1,000 00
21.	2.	Wales & Mantz.....	11 88
Dec. 8.	4.	H. B. Ogden.....	1,000 00
22.	3.	Bing. Pub. Co.....	11 88
			2,023 76

Official Salaries.

Oct. 8.	Paid	T. S. Armstrong....	\$750 00
		C. C. Eastman....	250 00
		O. J. Wilsey.....	200 00
		Edwin Evans	225 00
		Mrs. L. S. Smith....	87 50
Dec. 12.		Jerome De Witt....	200 00
			1, 712 50

Total disbursements..... \$31,699 74

REPORT of the Treasurer of the Binghamton Asylum for the Chronic Insane for the quarter beginning January 1, 1884, and ending March 31, 1884.

RECEIPTS.

To brought from last quarter,	Comptroller.....	\$1,001 32
"	" sundry sales.....	147 58
"	" furnishing	237 84
"	" detached building.....	3, 947 37
"	" boiler-house fund.....	2, 976 24
Total		\$8, 310 35
By carried f'd to appropriate accounts.....		\$8, 310 35

COUNTY FUNDS.

1884.

To amount received from—

Jan. 6.	Chenango county.....	\$108 60	
10.	Otsego county.....	322 53	
11.	Tioga county.....	838 59	
	Poughkeepsie city	279 73	
12.	Madison county	343 44	
14.	Delaware county	583 22	
	Rockland county	183 25	
15.	Saratoga county	523 48	
	Essex county	77 67	
16.	Steuben county.....	1, 216 55	
17.	Cayuga county	109 00	
	Suffolk county.....	675 42	
18.	Cortland county.....	34 45	
	Schuyler county.....	34 70	
	Herkimer county.....	124 07	
	Schoharie county.....	94 22	
	Chenango county	30 29	
19.	Greene county	592 99	
	Orange county.....	404 25	
	Washington county	173 36	
21.	Columbia county	776 06	
	Sullivan county.....	195 20	
22.	Queens county	123 70	
	Rensselaer county.....	1, 644 58	
23.	Kingston city	70 45	
24.	Onondaga county	869 98	
31.	Westchester county	2, 602 02	
Feb. 5.	Albany county	2, 078 19	
	Montgomery county.....	129 64	
6.	Saratoga county	1, 402 43	
7.	State of New York.....	504 04	
9.	Fulton county	214 90	
14.	Herkimer county	126 09	
15.	Schoharie county	34 45	
16.	Broome county.....	15 22	
27.	Onondaga county.....	373 37	
Mar. 3.	Queens county	106 80	
4.	Montgomery county.....	75 57	
7.	Dutchess county.....	638 43	
12.	Ulster county.....	1, 195 10	
		<hr/>	\$19, 926 03

1884.

Furnishing.

Jan. 1. To amount bro't over last quarter..... 237 84

Sundry Sales.

1884.		
Jan. 1.	To am't bro't over last quarter..	\$147 58
Mar. 31.	To am't rec'd Edwin Evans	186 15
		<hr/>
		\$333 73

Comptroller.

Jan. 1.	To amount brought over last quarter	1,001 32
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Official Salaries.

Jan. 10.	To received from State Treasurer.....	1,712 50
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Detached Building.

Jan. 1.	To amount brought over last quarter	3,947 37
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Boiler-house Fund.

Jan. 1.	To amount brought over last quarter	2,976 24
		<hr/>
		\$30,135 03
		<hr/> <hr/>

DISBURSEMENTS.

Current Expense.

Date.	Voucher.	NAME.	
1884.			
Jan. 8	226.	Paid Edwin Evans.....	\$73 56
12	220.	Pay-roll	1,780 58
16	224.	Bates & Johnson	231 62
21	183.	G. B. Hollister	52 40
	184.	Otis Bros.....	20 54
	185.	H. D. Ostermoor.....	47 76
	186.	J. H. Warner	12 75
	187.	Holly Manufacturing Co.....	4 65
	188.	C. D. Middlebrook.....	82 95
	189.	C. E. Lee.....	10 00
	190.	Stone & Sanders.....	105 60
	191.	Bennett, Butler & Co.....	319 90
	192.	Bean & Co.....	96 58
	193.	Bartlett Bros.	12 21
	194.	Finch & Ross	48 24
	195.	D. Lyons	43 65
	196.	A. S. Patten & Bro.....	78 98
	197.	Meagley & Blanchard	91 02
	198.	Shapley & Wells	77 07
	199.	Carter & Babcock.....	147 52
	200.	Benson & Gillespie	87 97
	201.	Saunders & Taylor.....	5 52

Date.	Voucher.	NAME.	
1884.			
Jan. 21.	202.	Paid Lewis & Brundage.....	\$36 00
	203.	R. H. Meagley.....	25 75
	204.	A. S. Miner.....	11 25
	205.	Marks & Clark.....	30 19
	206.	Lester Bros. & Co.....	30 00
	207.	L. W. Knowlton.....	11 40
	208.	H. Kohustamm & Co.....	77 33
	209.	Kendall, Clock & Co.....	5 50
	210.	H. W. Chubbuck & Co.....	55 50
	211.	C. W. Ingersoll.....	144 75
	212.	L. Doolittle.....	88 16
	213.	Anderson, Gregg & Son.....	27 41
	214.	Bing. Oil Ref. Co.....	188 78
	215.	J. R. Clark	9 00
	216.	Ransom Stove Co.....	9 27
	217.	C. F. Thomas	366 58
	218.	A. L. Williston.....	10 50
	219.	N. Y. & Pa. Tel. & Tel. Co....	8 00
	221.	H. A. Smith	12 18
	222.	D. L. Brownson	28 14
	223.	Sisson Bros. & Welden	176 10
	225.	W. S. Smith & Sons	4 32
	227.	A. J. Lyon	20 38
	228.	J. Frank Warren	50 00
23.	229.	N. Y., L. E. & W. R. R. Co ..	50 00
	230.	J. R. Livingston.....	186 00
25.	231.	L. Foster	209 53
29.	232.	H. B. Claflin & Co.....	196 00
	233.	Edwin Evans.....	123 39
Feb. 9.	235.	Pay-roll	1,785 33
16.	234.	H. K. & F. B. Thurber & Co ..	54 33
	236.	Austin, Nichols & Co	106 29
	237.	Burkhalter & Co.....	64 44
	238.	Huntington & Dorn.....	138 72
	239.	Kohnstamm & Co.....	81 90
	240.	Mott Iron Works.....	6 25
	241.	Lorig & Weber.....	600 00
	242.	Empire Ref. Co	224 73
	243.	J. W. Green & Co.....	7 50
	244.	Abel, Bennett & Co.....	7 25
	245.	Doubleday & Co.....	7 80
	246.	A. J. Leet & Son	100 74
	247.	W. H. Lyon	11 40
	248.	Telegraph & Telephone Co.....	16 00
	249.	H. W. Chubbuck & Co.....	10 23
	250.	Heath Bros	10 00
	251.	A. W. Palmer	33 25

Date.	Voucher.	NAME.	
1884.			
Feb. 16.	252.	Paid Chas. E. Lee	\$5 00
	253.	A. S. Miner	36 10
	254.	Patten & Bros	48 74
	255.	Saunders & Taylor	11 86
	256.	C. F. Thomas	584 70
	257.	H. A. Smith	16 94
	258.	L. Doolittle	101 10
	259.	E. F. Jones	70 00
	260.	D. Lyons	28 24
	261.	Carter & Babcock	90 30
	262.	Bean & Co	273 40
	264.	Sisson Bros. & Welden	33 75
	265.	Carl & Spaulding	2 00
	266.	Meagley & Blanchard	491 22
	267.	Hirschmann Bros.	159 07
	268.	V. W. Ford	157 51
	269.	Jerome De Witt	6 85
	270.	A. J. Lyon	25 14
	271.	C. D. Middlebrook	84 21
	272.	Stone & Sanders	17 75
	273.	Gregg & Son	74 90
	274.	D. L. Brownson	30 32
	275.	Otis Bros.	13 33
	276.	H. Watrous	13 22
	277.	Shapley & Wells	22 24
	278.	Isaac Bennett	66 02
	279.	B. M. Babcock	13 00
	280.	L. T. Garnsey	2 75
	281.	Jarvis Eng. Co	130 00
	282.	F. E. Boericke	4 00
	283.	G. B. Hollister	29 69
	284.	W. Pugsley	3 56
	285.	J. J. Moses	9 75
Mar. 10.	287.	Pay-roll	1, 770 65
	288.	H. B. Claffin & Co	200 48
	299.	Riley Bros.	106 25
15.	286.	Edwin Evans	146 48
	289.	Henderson & Co	29 50
	290.	Huntington & Dorn	114 87
	291.	Thurber, Whyland & Co	159 85
	292.	Kohnstamm & Co	78 90
	293.	Empire Refining Co	219 78
	294.	Heath Bros.	165 00
	296.	Lewis & Brundage	48 60
	297.	Union Wire Mat. Co	12 00
	298.	Sayles & Pratt	55 52
	300.	Bergin & Jones	70 64

Date.	Voucher.	NAME.	
1884.			
Mar. 15.	301.	Paid Bennett & Co.....	\$26 25
	302.	E. Ayers.....	12 00
	303.	L. M. Cafferty.....	10 00
	304.	O. A. Jenks.....	28 88
	305.	F. S. Jarvis & Co.....	3 15
	306.	D. Lyons.....	136 25
	307.	Marks & Clark.....	45 36
	308.	R. H. Meagley.....	25 75
	309.	A. S. Miner.....	10 75
	310.	W. Pugsley.....	5 18
	311.	Albany Dental Ass.....	39 25
	312.	R. H. Mosher.....	3 50
	313.	Gregg & Son.....	64 85
	314.	A. H. Leet & Son.....	30 24
	315.	Hirschmann Bros.....	53 77
	316.	D. Lyons.....	11 46
	317.	L. Doolittle.....	28 87
	295.	A. W. Palmer.....	150 00
	318.	G. S. Perry & Co.....	23 27
	319.	C. D. Middlebrook.....	28 62
	320.	H. A. Smith.....	6 65
	321.	Sisson Bros. & Welden.....	9 54
	322.	W. S. Smith & Sons	18 51
	323.	Otis Bros	24 25
	324.	C. F. Thomas.....	702 80
	325.	V. W. Ford.....	26 59
	326.	Binghamton Pub. Co	6 25
	327.	Carl & Spaulding	19 75
	328.	Carter & Babcock.....	83 83
	329.	D. R. Grant.....	22 74
	330.	A. S. Patten & Bros.....	49 46
	331.	G. B. Hollister.....	19 54
	332.	Meagley & Blanchard.....	383 90
	333.	Bean & Co.....	70 15
	334.	F. P. Costello.....	66 92
20.	336.	Claflin & Co.....	252 15
31.	338.	Edwin Evans.....	71 44
	365.	N. Y., L. E. & W. R. R.....	30 80
			<hr/>
			\$17, 326 49

Official Salaries.

Jan. 1.	Paid Edwin Evans.....	\$225 00
10.	T. S. Armstrong	750 00
	C. C. Eastman.....	250 00
	O. S. Wilsey.....	200 00

Date.	Voucher.	NAME.	
1884.			
Jan. 10.		Paid Jerome DeWitt.....	\$200 00
		Mrs. L. S. Smith....	87 50
			<hr/>
			\$1, 712 50

Detached Building.

Feb. 18.	6.	Paid H. B. Ogden.....	\$2, 000 00
27.	7.	D. J. Mallane.....	500 00
Mar. 22.	8.	D. J. Mallane.....	127 90
			<hr/>
			2, 627 90

Boiler-house Fund.

Jan. 24.	5.	Paid H. B. Ogden.....	\$1, 098 00
Mar. 4.	6.	Shapley & Wells....	1, 700 00
			<hr/>
			2, 798 00

Total disbursements.....	<hr/>	\$24, 464 89
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REPORT of the Treasurer of the Binghamton Asylum for the Chronic Insane for the quarter beginning April 1, 1884, and ending June 30, 1884.

RECEIPTS.

April 1.	To bro't from last quarter	furnishing	\$237	84
	“	“	sundry sales.....	333 73
	“	“	Comproller.....	1, 001 32
	“	“	current expenses.	2, 599 54
	“	“	detached building.	1, 319 47
	“	“	boiler-house.....	178 24
				<hr/>
			\$5, 670	14
	By carried to appropriate account.....		\$5, 670	14

COUNTY FUNDS.

1884.	To received from—	
April 5.	Chenango county.....	\$159 35
	Fulton county.....	219 79
	Tioga county.....	731 55
	Madison county.....	332 43
7.	Columbia county.....	539 13
	Delaware county.....	515 61
	Essex county.....	74 24
	Queens county.....	367 70
	Poughkeepsie city.....	350 01
8.	Cayuga county.....	104 74

1884. To received from—			
April	8.	Greene county.....	\$694 75
	9.	Richmond county.....	500 06
		Rensselaer county.....	3, 615 52
		Otsego county.....	501 94
		Suffolk county.....	602 22
	11.	Rockland county.....	183 60
	12.	Otsego county.....	204 48
		Herkimer county.....	32 49
	15.	Schuyler county.....	34 45
		Cortland county.....	35 10
		Madison county.....	95 40
	16.	Sullivan county.....	194 78
	18.	Delaware county.....	67 40
		State of New York.....	506 80
	21.	Tioga county.....	29 15
		Onondaga county.....	66 64
	24.	Schoharie county.....	70 20
	25.	Orange county.....	28 78
		Orange county.....	523 23
		Westchester county.....	2, 536 13
	26.	Albany county.....	2, 765 67
		Broome county.....	68 90
	28.	Chenango county.....	26 13
	29.	Madison county.....	52 26
		Tompkins county.....	25 75
		Onondaga county.....	628 50
May	8.	Tioga county.....	25 75
	13.	Dutchess county.....	627 03
	16.	Saratoga county.....	773 38
		Ulster county.....	663 16
June	29.	Kingston city.....	81 58
	11.	Herkimer county.....	57 56
		Suffolk county.....	60 21
	12.	Steuben county.....	1, 206 54
	26.	Warren county.....	446 76
	28.	Broome county.....	24 99
			<hr/>
			\$21, 251 84

Furnishing.

April 1.	To amount brought over last quarter.....	237 84
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Sundry Sales.

April 1.	To am't bro't over last quarter..	\$333 73
June 30.	To am't rec'd Edwin Evans....	77 75
		<hr/>
		411 48

Comptroller.

April 1.	To amount brought over last quarter.....	1,001 32
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1884.

Detached Building.

April 1.	To am't bro't over last quarter..	\$1,319 47	
May 24.	To am't rec'd from Comptroller.	5,000 00	
			<hr/>
			\$6,319 47

Boiler-House.

April 1.	To amount brought over last quarter.....	178 24
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Official Salaries.

April 3.	To rec'd from State Treasurer.....	1,712 50
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Current Expense.

To brought over, last quarter.....	2,599 54
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Total	<hr/> <hr/> \$33,712 23 <hr/> <hr/>
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DISBURSEMENTS.

Current Expense.

Date.	Voucher.	NAME.	
1884.			
April 3.	366.	Paid N. Y. L. E. & W. R. R. Co.....	\$37 50
10.	339.	Pay-roll	1,951 63
12.	340.	Peter Hayne	108 56
	341.	J. H. Warner.....	12 00
	342.	A. W. Palmer.....	235 00
	343.	Thurber, Whyland & Co.....	53 88
	344.	Sayles & Pratt.....	50 16
	345.	Ostermoor & Son.....	89 22
	346.	A. W. Carl.....	29 00
	347.	Binghamton Democrat.....	25 38
	348.	N. Y. & Pa. Tel. & Tel. Co....	16 00
	349.	Crouse & Brown.....	72 10
	350.	Albany Dental Association . . .	13 00
	351.	J. C. Mason.....	6 30
	353.	A. E. Smith.....	6 25
	354.	A. S. Patten & Bro.....	46 46
	352.	Wm. Pugsley.....	3 00
	355.	A. H. Leet & Son.....	407 77
	356.	H. W. Chubbuck & Co	12 10
	357.	Gregg & Son.....	67 20
	358.	L. T. Garnsey.....	5 25
	359.	Daniel Lyons.....	33 35
	360.	C. E. Lee.....	104 25
	361.	H. A. Smith.....	6 07
	362.	C. A. Whitney... ..	41 13
	363.	Hirschman Bros.....	99 31

Date.	Voucher.	NAME.	
1884.			
Apr. 12.	364. Paid	R. H. Meagley.....	\$26 25
	367.	C. F. Thomas	696 54
	368.	Mott Iron Works.....	29 79
	369.	Sisson Bros. & Weldon.....	99 43
	370.	Shapley & Wells.....	23 25
	371.	Bean & Co.....	68 92
	372.	Bartlett Bros.....	240 81
	373.	Lorig & Webber	612 50
	374.	D. L. Brownson.....	89 95
	375.	Carl & Spaulding.	6 00
	376.	C. E. Dunn.....	181 93
	377.	L. Doolittle.....	96 61
	378.	D. R. Grant.....	19 74
	379.	G. B. Hollister.....	14 31
	380.	Lewis & Brundage.....	34 50
	381.	A. S. Miner	17 43
	382.	Marks & Clark.....	331 98
	383.	Simon O'Neil.....	13 20
	384.	Otis Brothers	15 91
	385.	Stone & Sanders.....	7 85
	386.	Carter & Babcock....	190 00
	387.	A. J. Lyon	24 25
	515. (old series),	A. C. Thompson.....	71 28
15.	388.	J. McNamara	18 90
28.	390.	Edwin Evans.....	92 90
May 9.	442.	V. W. Ford.....	84 99
	389.	Pay-roll	2,178 34
10.	435.	S. R. Blackman	190 00
16.	391.	Kohnstamm & Co	150 01
	392.	H. B. Claflin & Co.....	95 25
	393.	Truax, Tompkins & Co.....	23 48
	394.	Austin, Nichols & Co	18 95
	395.	Huntington & Dorn	39 28
	396.	L. W. Loomis	27 75
	397.	Leggett & Co	82 62
	398.	Powell & Co.....	4 25
	399.	Sayles & Pratt	74 94
	400.	Bergin & Jones	8 32
	401.	Gere, Truman & Co.....	3 50
	402.	Mott Iron Works.....	66 87
	403.	Thurber, Whyland & Co.....	60 48
	404.	Lewis & Brundage.....	106 50
	405.	J. H. Mason	3 50
	406.	A. J. Lyon	60 99
	407.	H. W. Lyon	18 27
	408.	O. E. Lee.....	19 36
	410.	Gregg & Son	69 00

Date.	Voucher.	NAME.	
1884.			
May 16.	411. Paid	Crouse & Brown.....	\$33 33
	412.	W. Bennedick.....	66 00
	413.	David Brown.....	189 62
	414.	A. Bennett & Co.....	6 78
	415.	Whitney & Co.....	28 52
	416.	Benson & Gillespie.....	27 81
	417.	H. A. Smith.....	3 73
	418.	N. Y. & Pa. Tel. & Tel. Co....	8 00
	419.	C. D. Middlebrook.....	44 05
	420.	A. S. Miner.....	4 00
	421.	Leet & Son.....	409 20
	422.	E. Ayers.....	6 00
	423.	Weed & Co.....	39 00
	424.	Hirschman Bros.....	137 74
	425.	Otis Bros.....	32 77
	426.	C. F. Thomas.....	721 99
	427.	Marks & Clark.....	175 48
	428.	Sisson Bros. & Welden.....	338 79
	429.	A. S. Patten & Bro.....	81 16
	430.	Bartlett Bros.....	161 65
	431.	Chubbuck & Co.....	76 39
	432.	D. R. Grant.....	184 28
	433.	D. L. Brownson.....	48 76
	434.	Daniel Lyons.....	65 86
	436.	W. S. Smith & Sons.....	160 23
	437.	G. B. Hollister.....	18 66
	439.	Perry & Co.....	16 85
	440.	Carter & Babcock.....	123 30
	441.	Shapley & Wells.....	27 60
	443.	Meagley & Blanchard.....	191 78
	444.	S. B. Drass.....	123 00
	445.	Hyde & Winters.....	38 32
22.	448.	Edwin Evans.....	143 27
28.	446.	N. Y., L. E. & W. R. R. Co...	85 13
	447.	N. Y., L. E. & W. R. R. Co...	37 51
June 6.	498.	Edwin Evans.....	89 02
10.	449.	Pay-roll.....	2,235 88
19.	450.	L. Doolittle.....	42 92
	451.	Lewis & Brundage.....	46 50
	452.	H. B. Claflin & Co.....	59 70
	453.	Thurber, Whyland & Co.....	116 42
	454.	H. Kohnstamm & Co.....	79 28
	455.	Sayles & Pratt.....	46 58
	456.	Lorig & Webber.....	668 75
	457.	Leggett & Co.....	115 63
	458.	Hinge & Co.....	11 50
	459.	Holly M'f'g Co.....	44 00

Date.	Voucher.	NAME.	
1884.			
June 19	460. Paid	I. P. Calkin.....	\$9 00
	461.	Benson & Gillespie	20 40
	462.	H. Apley	101 08
	463.	Oil Refining Co	85 60
	464.	J. R. Clark	7 50
	465.	J. J. Moses	8 00
	466.	N. Y. & Pa. Tel. & Tel. Co....	8 00
	467.	Persels, Nichol & Mack.....	5 50
	468.	Crounse & Brown	9 00
	469.	H. W. Chubbuck & Co.....	121 52
	470.	G. Van Wormer.....	6 00
	471.	C. F. Thomas	434 78
	472.	D. C. McGraw	15 90
	473.	White & Wood	29 36
	474.	A. W. Carl	5 50
	475.	Bing. Publishing Co	18 85
	476.	Bean & Co	16 40
	477.	Gregg & Son.....	202 75
	478.	Davis & Duell	78 32
	479.	A. H. Leet & Son	590 27
	480.	Otis Bros.....	14 53
	481.	Meagley & Blanchard	385 00
	482.	Shapley & Wells	58 11
	483.	D. L. Brownson.....	23 10
	484.	H. A. Smith	6 70
	485.	L. T. Garnsey.....	26 23
	486.	Patten & Bro	41 58
	487.	Mathews & Co	30 91
	488.	Smith & Sons.....	4 25
	489.	Hirschman Bros	68 27
	490.	Coal & Coke Co.....	62 00
	491.	D. R. Grant	23 25
	492.	Daniel Lyons	5 65
	493.	W. S. Legge & Co.....	25 30
	494.	Marks & Clark	124 27
	495.	G. B. Hollister	24 92
	496.	Sisson Bros. & Welden	112 49
	497.	N. Sherwood.....	19 55
	409.	L. T. Garnsey.....	2 50
27.	499.	Edwin Evans	98 99
			<hr/>
			\$20,291 81

Detached Building.

Apr. 18.	9. Paid	Bing. Democrat.....	\$16 88
	10.	A. W. Carl	12 00
	11.	Bates & Johnson....	123 48
	12.	Shapley & Wells....	68 81

Date.	Voucher.	NAME.		
1884.				
Apr. 24.	13.	Paid D. J. Mallane	\$200	00
10.	14.	H. B. Ogden	1,000	00
	15.	H. B. Ogden	314	00
			<hr/>	
				\$1,735 17

Official Salaries.

Apr. 3.	Paid	T. S. Armstrong	\$750	00
		C. C. Eastman	250	00
		O. J. Wilsey	200	00
		Edwin Evans	225	00
		Jerome De Witt	200	00
		Mrs. L. S. Smith	87	50
			<hr/>	
				1,712 50
			<hr/>	
Total disbursements				\$23,739 48
			<hr/>	

REPORT of the Treasurer of the Binghamton Asylum for the Chronic Insane, for the quarter beginning July 1, 1884, and ending September 30, 1884.

RECEIPTS.

July 1.	To bro't from last quarter, county funds...	\$3,559	57
"	" detached building.	4,584	30
"	" furnishing	237	84
"	" boiler-house	178	24
"	" Comptroller	1,001	32
"	" sundry sales.. ..	411	48
		<hr/>	
		\$9,972	75
By carried to appropriate accounts		9,972	75
		<hr/>	

COUNTY FUNDS.

1884.			
July 1.	To brought over last quarter ...	\$3,559	57
	To received from—		
7.	Chenango county	127	05
	Madison county	545	87
	Schoharie county	71	24
	Delaware county	691	68
8.	Essex county	70	41
	Cayuga county	110	48
	Columbia county	751	13
	Poughkeepsie city	342	46
12.	Cortland county	32	18

1884.

To received from—

July 12.	Queens county	\$375 71	
	Washington county	72 78	
	Broome county	138 45	
	Suffolk county	707 05	
14.	Otsego county	580 28	
	Rockland county	284 35	
16.	Orange county	494 21	
17.	Greene county	670 25	
18.	Herkimer county	216 05	
	Rockland county	63 60	
19.	Madison county	31 05	
	State of New York	485 94	
21.	Fulton county	236 88	
	Rockland county	30 67	
22.	Albany county	2,923 51	
27.	Rensselaer county	3,505 35	
	Westchester county	2,625 94	
Aug. 12.	Otsego county	23 48	
	Schuyler county	34 83	
16.	Dutchess county	613 83	
	Kingston city	112 11	
25.	Madison county	31 06	
Sept. 2.	Onondaga county	612 09	
	Steuben county	1,503 86	
4.	Tioga county	784 13	
13.	Steuben county	16 28	
		<hr/>	\$23,475 81

Furnishing.

July 1.	To brought over last quarter	237 84
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Sundry Sales.

July 1.	To brought over last quarter	411 48
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Detached Building.

July 1.	To bro't over last quarter	\$4,584 30	
	Received from Comptroller	3,000 00	
		<hr/>	7,584 30

Boiler-House.

July 1.	To bro't over last quarter	178 24
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Comptroller.

July 1.	To bro't over last quarter	1,001 32
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Fence Fund.

1884.

Aug. 8.	To received from Comptroller.....	\$1,000 00
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General Finishing.

Aug. 8.	To received from Comptroller.....	5,000 00
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Trestle Steam Pipe.

Aug. 8.	To received from Comptroller.....	2,217 50
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Current Expense.

Sept. 30.	To received detached building account.....	364 50
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Official Salaries.

July 4.	To received State Treasurer.....	1,712 50
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Total	\$43,183 49
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DISBURSEMENTS.

Current Expense.

Date.	Voucher.	NAME.	
1884.			
July 8.	512.	Paid D. Brown.....	\$173 36
	519.	V. W. Ford.....	70 70
10.	500.	Pay-roll.....	2,150 25
	545.	H. Haskins.....	252 80
18.	501.	Thurber, Whyland & Co.....	88 49
	502.	Gilbert & Barnes M'f'g Co.....	77 84
	503.	H. Kohnstamm & Co.....	87 30
	504.	Huntington & Dorn.....	124 04
	505.	A. Campbell & Co.....	396 50
	506.	Heath Bros.....	11 68
	507.	A. W. Palmer.....	16 85
	508.	Lorig & Webber.....	196 00
	509.	Lewis Brundage.....	22 50
	510.	H. W. Chubbuck & Co.....	151 34
	511.	Benson & Gillespie.....	16 10
	513.	Frank Stow.....	50 31
	514.	E. Ayers.....	6 00
	515.	A. Bennett & Co... ..	15 80
	516.	Gregg & Son.....	103 70
	517.	Meagley & Blanchard.....	1, 204 86
	518.	O. W. Sears.....	65 94
	520.	Sisson Bros. & Welden.....	34 70
	521.	W. S. Smith & Sons.....	30 85
	522.	Marks & Clark.....	74 43

Date.	Voucher.	NAME.	
1884.			
July 18.	523.	Paid McKinney & Evarts.....	\$131 04
	524.	D. Lyons.....	20 50
	525.	C. E. Lee.....	101 10
	526.	Hirschman Bros.....	118 53
	527.	D. R. Grant.....	40 25
	528.	D. L. Brownson.....	6 36
	529.	H. B. Darrow.....	19 04
	530.	Crounse & Brown.....	5 04
	531.	Davis & Duell.....	30 70
	532.	L. T. Garnsey.....	114 16
	533.	J. F. Ward.....	26 10
	534.	C. F. Thomas.....	696 06
	535.	T. E. Porter.....	45 85
	536.	A. S. Miner.....	9 60
	537.	Telegraph & Telephone Co.....	8 00
	538.	Bing. Oil Refg. Co.....	30 35
	539.	J. McGaw.....	20 80
	540.	A. J. Lyon.....	57 42
	541.	N. Y., L. E. & W. R. R. Co....	42 00
	542.	W. H. Lyon.....	156 26
	543.	A. H. Leet & Son.....	106 21
	544.	F. S. Jarvis & Co.....	6 30
	546.	Jerome DeWitt.....	5 50
	547.	Stone & Sanders.....	116 52
	548.	A. E. Smith.....	17 75
	549.	H. A. Smith.....	11 00
	550.	C. W. Sears & Son.....	42 07
	551.	A. S. Patten & Bro.....	47 78
	552.	C. D. Middlebrook.....	97 29
	553.	Bartlett Bros.....	139 05
	554.	Otis Bros.....	9 65
	555.	Carter & Babcock.....	143 30
	556.	Carter & Babcock.....	110 91
	25. 557.	Paige, Chaffee & Co.....	160 00
Aug. 5.	614.	Harvey Keech.....	163 41
	8. 558.	Edwin Evans.....	170 23
	9. 559.	Pay-roll.....	2, 179 40
	23.	Pay-roll (detached building)*....	121 32
	11. 672.	C. T. Reynolds & Co.....	251 41
	615.	N. Y., L. E. & W. R. R. Co....	60 00
	617.	Troy Laundry Mich. Co.....	148 50
	618.	Claffin & Co.....	480 97
	14. 585.	C. F. Thomas.....	858 12
	590.	Gregg & Son.....	67 20
	15. 560.	Leggett & Co.....	109 11

* Paid from current expense account, to be charged to detached building account when in funds.

Date.	Voucher.	NAME.	
1884.			
Aug. 15.	561.	Paid Lewis & Brundage.....	\$20 40
	562.	Heath Bros.....	232 95
	563.	Huntington & Dorn.....	73 33
	564.	Mott Iron Works.....	5 00
	565.	V. W. Schooley.....	31 90
	566.	Sayles & Pratt.....	94 27
	567.	Cyrus Munson.....	81 43
	568.	A. W. Palmer.....	230 00
	569.	Thurber, Whyland & Co.....	40 70
	570.	D. T. Scudder.....	8 48
	571.	W. Powell & Co.....	3 80
	572.	W. S. Legge & Co.....	21 60
	573.	Kohnstamm & Co.....	84 98
	574.	O. A. Jenks & Co.....	29 15
	575.	Chubbuck & Co.....	98 46
	576.	Binghamton Democrat.....	30 00
	577.	Corbin & Son.....	5 00
	578.	Bennett & Co.....	122 00
	579.	E. Ayers.....	12 00
	580.	Telegraph & Telephone Co.....	8 00
	581.	H. B. Darrow.....	48 27
	582.	J. R. Clark.....	3 75
	583.	E. F. Bloomer.....	2 38
	584.	Binghamton Pub. Co.....	12 50
	586.	C. D. Middlebrook.....	33 05
	587.	C. E. Lee.....	32 50
	588.	Leet & Son.....	242 81
	589.	Hirschman Bros.....	125 90
	591.	L. T. Garnsey.....	25 35
	592.	D. L. Brownson.....	17 51
	593.	F. P. Costello.....	41 00
	594.	D. R. Grant.....	21 53
	595.	G. B. Hollister.....	46 68
	596.	Perry & Co.....	12 01
	597.	T. E. Porter.....	8 75
	598.	Shapley & Wells.....	23 25
	599.	H. A. Smith.....	20 97
	600.	Stone & Sanders.....	70 10
	601.	Sisson Bros. & Welden.....	191 02
	602.	Davis & Duell.....	38 33
	603.	D. Lyons.....	55 41
	604.	Marks & Clark.....	298 30
	605.	A. S. Minor.....	19 31
	606.	S. O'Neil.....	16 75
	607.	Otis Bros.....	23 37
	608.	Stevens & Foote.....	15 00
	609.	A. S. Patten & Bro.....	79 08

Date.	Voucher.	NAME.	
1884.			
Aug. 16.	610.	Paid W. S. Smith & Sons.....	\$17 56
	611.	Bean & Co.....	25 23
	612.	J. Reynolds & Co.....	4 64
	613.	Carter & Babcock.....	41 14
21.	182.	S. D. Halliday.....	43 07
	335.	F. O. Cable.....	22 63
	337.	G. Truman.....	23 37
23.	616.	Edwin Evans.....	117 33
Sept. 8.	667.	Gregg & Son	312 25
10.	671.	Pay-roll	2,274 21
17.	670.	Edwin Evans	124 29
	653.	C. F. Thomas	831 24
25.	618½.	Kohnstamm & Co	79 87
	619.	Sayles & Pratt	111 38
	620.	Thurber, Whyland & Co	19 95
	621.	Bramhall, Dean & Co	42 00
	622.	Huntington & Dorn	76 50
	623.	Leggett & Co	186 97
	624.	Legge & Co.....	28 50
	625.	Lorig & Webber.....	633 75
	626.	Cyrus Munson	92 64
	627.	J. H. Warner	46 75
	628.	Pratt Manufacturing Co	83 81
	629.	F. E. Boericke.....	4 00
	630.	G. B. Hollister	20 02
	631.	Carter & Babcock	280 11
	632.	E. Ayers	26 83
	633.	G. Edson Porter	31 30
	634.	Patten Bros....	82 25
	635.	D. R. Grant	30 84
	636.	Matthews & Co.....	29 66
	637.	Daniel Lyons	15 40
	638.	Benson & Gillespie	46 30
	639.	Bean & Co	37 71
	640.	Carl & Spaulding.....	17 50
	641.	H. W. Chubbuck.....	99 84
	642.	Leet & Son	204 30
	643.	Chas. E. Lee	35 00
	644.	A. S. Miner	36 16
	645.	C. D. Middlebrook.....	4 28
	646.	White & Wood.....	34 50
	647.	L. T. Garnsey	56 04
	648.	D. J. Mallane	31 28
	649.	J. J. Moses	8 00
	650.	Stevens & Miller	9 20
	651.	Saunders & Taylor.....	152 05
	652.	D. T. Scudder.....	49 60

Date.	Voucher.	NAME.	
1884.			
Sept. 25.	654.	Paid Stone & Sanders.....	\$19 45
	655.	H. A. Smith	8 10
	656.	W. S. Smith & Sons	3 88
	657.	Telegraph & Telephone Co.....	9 55
	658.	Otis Bros.....	28 27
	659.	V. W. Ford.....	26 79
	660.	Davis & Duell	15 91
	661.	Conklin & Mersereau.....	3 75
	662.	A. W. Carl	10 50
	663.	D. L. Brownson	22 22
	664.	Marks & Clark.....	175 92
	665.	Shapley & Wells	44 90
	666.	Sisson Bros. & Welden.....	316 84
	668.	Hirschman Bros	50 40
	669.	J. F. Ward	15 30
			<hr/>
			\$22,815 86

Furnishing.

July 18.	1.	Paid Ostermoor & Son...	\$11 75	
Aug. 11.	6.	Clafin & Co.....	34 68	
15.	11.	Hirschman Bros....	3 75	
			<hr/>	50 18

Detached Building.

July 12.	16.	Paid D. J. Mallane.....	\$67 20	
	17.	D. J. Mallane.....	1,080 08	
	22.	H. B. Ogden.....	5,288 50	
Aug. 15.	19.	Bartlett Bros.....	11 50	
	20.	H. W. Lyon	20 53	
	21.	C. D. Middlebrook..	74 59	
	22.	D. J. Mallane.....	19 78	
Sept. 10.	28.	Pay-roll	25 50	
	22.	I. G. Perry	545 72	
	25.	W. H. Lyon	12 39	
	25.	Bartlett Bros.	19 40	
	26.	C. Campbell	6 00	
	27.	C. D. Middlebrook..	52 50	
	19.	H. B. Ogden.....	458 76	
	30.	Current expense acct.	364 50	
			<hr/>	8,046 95

Fence Fund.

July 10.	1.	Paid pay-roll.....	\$84 00	
Aug. 15.	2.	D. & G. W. Weed..	249 75	
			<hr/>	333 75

General Furnishing.

Date.	Voucher.	NAME.		
1884.				
Aug. 15.	2.	Paid H. B. Claflin & Co..	\$170 00	
	3.	Bartlett Bros.....	17 95	
	4.	Hartford W. W. Co.	1,515 20	
	5.	Ostermoor & Son...	39 48	
23.	7.	Claflin & Co	77 06	
Sept. 10.	22.	Pay-roll	30 00	
22.	11.	Crounse & Brown ..	50 00	
25.	8.	Sisson Bros. & Wel-		
		den	64 45	
	9.	Anna Van Patten...	11 28	
	10.	M. Morton.....	28 50	
	13.	J. M. Robinson &		
		Sons	1,231 71	
				\$3,235 63

Official Salaries.

July 5.	Paid	T. S. Armstrong....	\$750 00	
		C. C. Eastman.....	250 00	
		O. J. Wilsey.....	200 00	
		Edwin Evans.....	225 00	
		Jerome De Witt....	200 00	
		Mrs. L. S. Smith ...	87 50	
				1,712 50
		Total disbursements	\$36,194 87	

REPORT of the Treasurer of the Binghamton Asylum for the Chronic Insane for the year beginning October 1, 1883, and ending September 30, 1884.

AGGREGATE RECEIPTS.

County Funds.

To balance bro't from last year	\$152 31	
Collected first quarter.....	15,872 56	
“ second quarter.....	19,926 03	
“ third quarter.....	21,251 84	
“ fourth quarter	19,916 24	
		\$77,118 98

Comptroller's Account.

To balance bro't from last year.....	\$3,923 05	
Received first quarter	15,000 00	
		18,923 05

Sundry Sales.

To balance bro't from last year.....	\$147 58	
Received second quarter.....	186 15	
“ third quarter	77 75	
	<hr/>	\$411 48

Furnishing Account.

To balance brought from last year	237 84
---	--------

Detached Building.

To balance brought from last year	\$2,964 25	
Received third quarter	5,000 00	
“ fourth quarter	3,000 00	
	<hr/>	10,964 25

Fence Fund.

To received fourth quarter, Comptroller	1,000 00
---	----------

General Furnishing.

To received fourth quarter, Comptroller	5,000 00
---	----------

Trestle and Steam Pipe.

To received fourth quarter, Comptroller	2,217 50
---	----------

Current Expense.

To received fourth quarter, detached building fund..	364 50
--	--------

Official Salaries.

To received first quarter	\$1,712 50	
“ second quarter	1,712 50	
“ third quarter.....	1,712 50	
“ fourth quarter.....	1,712 50	
	<hr/>	6,850 00

Total	<hr/> <hr/> \$123,087 60
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AGGREGATE DISBURSEMENTS.

Current Expense.

By paid first quarter	\$20,946 60	
“ second quarter	17,326 49	
“ third quarter.....	20,291 81	
“ fourth quarter.....	22,815 86	
	<hr/>	\$81,380 76

Furnishing Account.

By paid fourth quarter	50 18
------------------------------	-------

Detached Building.

By paid first quarter	\$7,016 88	
“ second quarter.....	2,627 90	
“ third quarter	1,735 17	
“ fourth quarter.....	8,046 95	
	<hr/>	\$19,426 90

Fence Fund.

By paid fourth quarter.....	333 75
-----------------------------	--------

General Furnishing.

By paid fourth quarter	3,235 63
------------------------------	----------

Official Salaries.

By paid first quarter	\$1,712 50	
“ second quarter.....	1,712 50	
“ third quarter.....	1,712 50	
“ fourth quarter.....	1,712 50	
	<hr/>	6,850 00

Boiler-House.

By paid first quarter.....	\$2,023 76	
“ second quarter.....	2,798 00	
	<hr/>	4,821 76

Total.....	<hr/>	\$116,098 98
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SUMMARY STATEMENT.

Total receipts, as stated.....	\$123,087 60	
“ disbursements, as stated.....	116,098 98	
	<hr/>	\$6,988 62
Carried to next year.....		<hr/> \$6,988 62

RECAPITULATION.

County Funds.

Balances.

To received, as stated.....	\$77,118 98	
By paid current expense.....	\$76,094 53	
“ loaned det'd build'g.	462 65	
	<hr/>	76,557 18
	<hr/>	\$561 80

Comptroller's Account.

To received, as stated.....	\$18,923 05	
By paid current expense.....	\$4,921 73	
“ detached building....	8,000 00	
“ boiler-house.....	5,000 00	
	<hr/>	17,921 73
	<hr/>	1,001 32

Sundry Sales.

To received as stated.....	\$411 48	
By paid.....		411 48
	<u>=====</u>	

Furnishing Account.

To received as stated.....	\$237 84	
By paid as stated.	50 18	
	<u>=====</u>	187 66

Detached Building.

To received as stated.....	\$10,964 25	
" Comp. act first qr.	8,000 00	
Borrowed county funds.....	462 65	
	<u>=====</u>	\$19,426 90
By paid as stated.....	19,426 90	
	<u>=====</u>	

Fence Fund.

To received as stated.....	\$1,000 00	
By paid as stated.....	333 75	
	<u>=====</u>	666 25

General Furnishing.

To received as stated.....	\$5,000 00	
By paid as stated.....	3,235 63	
	<u>=====</u>	1,764 37

Boiler-House.

To received as stated from Compt'r's acct.	\$5,000 00	
By paid.....	4,821 76	
	<u>=====</u>	178 24

Trestle and Steam Pipe.

To received as stated.....	\$2,217 50	
By paid.....		2,217 50
	<u>=====</u>	

Official Salaries.

To received as stated.....	\$6,850 00	
By paid as stated.....	6,850 00	
	<u>=====</u>	

• Balance, September 30, 1884, as above.....	\$6,988 62
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All of which is respectfully submitted,

JEROME DEWITT, *Treasurer.*

BINGHAMTON, N. Y., *October 10, 1884.*

REPORT OF THE SUPERINTENDENT.

To the Trustees of the Binghamton Asylum for the Chronic Insane :

The sixth annual report is most respectfully presented to your honorable board.

It contains tables of statistics taken from the case-books, showing the movement of the insane population for the year ending September 30, 1884. It also presents the absolute needs and recommendations necessary to make the institution what it should be for the proper care and treatment of the insane.

No. 1.

Movement of Population.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
No. of patients Sept. 30, 1883...	215	210	425			
Admissions within the year	125	118	243			
Discharged as recovered	12	3	15	9	6	30
Discharged as improved	9	7	16	4	3	23
Discharged as not improved....	5	2	7	2	3	12
Discharged as not insane .....	..	..	..	..	1	1
Discharged by death	29	18	47	33	21	101
Discharged by elopement	3	..	3	2	..	5
No. remaining Sept. 30, 1884...	282	298	580			
Daily average for year	248	254	502			

No. 2.

Asylum Relation of Patients.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
First entrance to asylum.....	37	47	84	65	48	197
Transfers from other asylums ..	47	46	93	156	122	371
Transfers from exempt county asylums.	30	20	50	20	8	78
Have been in other asylums, but not direct transfers	11	1	12	22	19	53

No. 3.

Nativity of Patients.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
United States.....	81	48	129	163	124	416
Ireland	22	43	65	61	74	200
Germany.....	16	10	26	18	17	61
Canada .....	..	1	1	3	3	7
England	11	1	12	3	6	21
Scotland	1	..	1	..	1	2
Italy .....	..	..	..	2	1	3
France	1	1	2	..	3	5
Prussia .....	..	..	..	1	..	1
Switzerland .....	..	1	1	..	..	1
Wales .....	..	1	1	..	..	1
	=====	=====	=====	=====	=====	=====

No 4.

Residence of Patients.

COUNTIES.	1883-4.	Previously reported.
Albany	38	76
Broome	2	5
Cayuga .....	..	5
Chemung .....	..	1
Chenango	2	4
Cortland	2	..
Columbia	5	15
Delaware.....	11	9
Dutchess	1	30
Essex .....	..	2
Fulton	3	4
Greene	4	18
Herkimer	4	5
Livingston .....	..	1
Madison	8	13
Montgomery.....	1	4
Orange	3	16
Otsego	13	16
Onondaga	11	13
Queens	6	4
Rensselaer.....	56	49
Richmond .....	..	5
Rockland	6	5
Saratoga	11	13
Schoharie	3	..
Steuben.....	20	32

COUNTIES.	1883-4.	Previously reported.
Suffolk	8	13
Sullivan	2	5
Schuyler .....	..	1
Tioga	11	17
Tompkins	1	..
Ulster	4	21
Warren	4	1
Washington .....	..	2
Westchester	2	89
State	1	15

No. 5.

Occupation of Patients.

	1883-4.	Previously reported.	Total.
Artist .....	..	1	1
Actor	1	..	1
Advertising agent .....	..	1	1
Boatmen	2	6	8
Bartender	1	..	1
Blacksmith .....	..	2	2
Butcher	1	1	2
Boiler-maker	1	.	1
Book-keeper	2	1	3
Brickmaker	1	1	2
Baker	1	1	2
Barbers	4	..	4
Bootblack .....	..	1	1
Boxer .....	..	1	1
Button-maker .....	..	1	1
Carpenter	4	7	11
Clerk	1	4	5
Cigar-maker	1	3	4
Cabinet-maker .....	..	2	2
Cooper	1	1	2
Cook .....	..	1	1
Coachman	1	4	5
Collar-maker .....	..	1	1
Domestic	19	..	19
Dentist .....	..	1	1
Dressmaker	2	..	2
Druggist	1	1	2
Engineer	1	1	2
Evangelist	1	..	1
Editor .....	..	1	1
Factory operators	1	8	9
Farmers	27	56	83
Firemen .....	..	1	1

	1883-4.	Previously reported.	Total
Gardener.....	..	2	2
Housekeeper.....	50	107	157
Housework.....	11	61	72
Hatter.....	..	2	2
Lacemaker.....	1	..	1
Liquor dealer.....	..	1	1
Laborer.....	22	78	100
Laundress.....	..	2	2
Lawyer.....	..	1	1
Mechanic.....	..	5	5
Merchant.....	2	4	6
Mason.....	..	6	6
Moulder.....	2	..	2
Musician.....	..	2	2
Miller.....	..	2	2
Miner.....	..	1	1
Minister.....	1	..	1
Milliner.....	..	1	1
Machinist.....	1	..	1
Nurse.....	1	1	2
Nailmaker.....	1	..	1
Painter.....	1	1	2
Porter.....	1	..	1
Printers.....	..	2	2
Pattern-maker.....	..	1	1
Peddler.....	2	..	2
Rubber-maker.....	..	1	1
Sailor.....	..	4	4
Student.....	1	3	4
Salesmen.....	..	3	3
Surveyor.....	1	..	1
Servant.....	6	14	20
Seamstresses.....	2	3	5
Soldier.....	1	..	1
Stone-cutter.....	2	2	4
Shirtmaker.....	..	1	1
Speculator.....	1	..	1
Saloon-keeper.....	1	1	2
Shoemaker.....	2	4	6
Stovemoulder.....	..	1	1
Tailor.....	2	6	8
Tinsmith.....	..	1	1
Teacher.....	2	8	10
Tanner.....	..	1	1
Teamster.....	3	..	3
Tobacco-stripper.....	1	..	1
Wagon-maker.....	1	..	1
Woolsorter.....	1	..	1

No. 6.

Age of Patients.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Ten to fifteen	1	1	2	..	..	2
Fifteen to twenty	3	1	4	6	3	13
Twenty to twenty-five.....	11	7	18	23	16	57
Twenty-five to thirty.....	11	13	24	38	24	86
Thirty to thirty-five.....	20	10	30	34	23	87
Thirty-five to forty... ..	10	14	24	33	32	89
Forty to fifty.....	27	24	51	66	59	176
Fifty to sixty	20	20	40	28	48	116
Sixty to seventy.....	13	19	32	19	25	76
Seventy to eighty.....	8	3	11	14	8	33
Eighty to ninety.....	2	..	2	..	1	3
	=====	=====	=====	=====	=====	=====

No. 7.

Civil Condition of Patients.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Married	48	41	89	79	103	271
Single.....	58	47	105	150	97	352
Widowed.. ..	9	22	31	13	27	71
	=====	=====	=====	=====	=====	=====

No. 8.

Statistics of Heredity.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Paternal.....	5	2	7	11	11	29
Maternal.....	1	5	6	19	24	49
Paternal and maternal.....	2	1	3	3	7	13
Insane relations.....	5	8	13	15	14	42
No heredity.....	26	26	52	17	12	81
	=====	=====	=====	=====	=====	=====

No. 9.

Forms of Mental Disorder.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Melancholia.	9	12	21	10	14	45
Mania, acute.....	...	2	2	4	1	7
sub-acute.....	4	4	8	2	11	21
chronic.....	27	29	56	65	46	167
periodic	4	5	9	2	14	25
paroxysmal	3	5	8	6	11	25
Dementia	55	50	105	135	120	360
Epilepsy	9	10	19	29	25	73
Paresis	13	..	13	9	..	22
Idiotic.....	1	1	2	2	2	6
Not insane .....	..	..	..	1	..	1
	=====	=====	=====	=====	=====	=====

No. 10.

Probable Cause of Insanity.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Ill health.....	7	12	19	11	43	73
Grief and anxiety....	1	4	5	15	28	48
Hereditv.....	6	8	14	33	37	84
Injury.....	6	..	6	12	2	20
Epilepsy	10	5	15	28	25	68
Intemperance.	8	3	11	27	11	49
Puerperal .....	..	6	6	..	10	16
Domestic trouble.....	3	4	7	3	14	24
Syphilis	1	..	1	3	..	4
Sunstroke.....	5	..	5	5	..	10
Masturbation.....	3	...	3	8	3	14
Religious excitement.....	..	..	..	2	2	4
Disappointment in love.....	..	..	..	1	2	3
Loss of property.....	1	1	2	2	1	5
	=====	=====	=====	=====	=====	=====

No. 11.

Ages of Those who Died.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Twenty to twenty-five years ...	1	1	2	2	..	4
Twenty-five to thirty years....	1	..	1	4	2	7
Thirty to thirty-five years.....	1	..	1	2	2	5
Thirty-five to forty years.....	1	2	3	2	2	7
Forty to fifty years.....	8	3	11	8	4	33
Fifty to sixty years.....	6	4	10	2	2	14
Sixty to seventy years.....	7	4	11	7	5	23
Seventy to eighty years.....	4	3	7	6	3	16
Eighty to ninety.....	1	..	1	..	..	1
	=====	=====	=====	=====	=====	=====

No. 12.

Cause of Death.

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Phthisis Pulmonalis.....	4	3	7	5	3	15
General debility.....	1	3	4	2	3	9
Cerebral effusion.....	1	4	5	2	1	8
Chronic mania.....	..	..	..	5	4	9
Cerebral softening.....	..	..	..	4	..	4
Epilepsy.....	4	1	5	4	3	12
Small-pox .....	..	..	..	1	..	1
Suicide.....	..	..	..	1	..	1
Syphilis .....	..	..	..	1	..	1
Paralysis.....	..	..	..	1	1	2

	1883-4.			Previously reported.		
	Males.	Females.	Total.	Males.	Females.	Total.
Heart disease.....	1	2	3	2	..	5
Pneumonia	4	..	4	..	2	6
General paresis.....	4	.	4	4	..	8
Dysentery.....	1	..	1	2	2	5
Gastro-enteritis.	1	..	1	1	..	2
Pulmonary gangrene.....	1	..	1	..	..	1
Hepatic abscess	1	..	1	..	..	1
Cerebral hemorrhage.	2	1	3	..	..	3
Phlegmonous erysipelas	2	..	2	..	..	2
Marasmus .....	..	1	1	..	..	1
Asthma .....	..	2	2	..	..	2
Suppurative nephritis .....	..	1	1	..	..	1
Bright's disease.....	1	..	1	..	..	1
Cystitis.....	..	1	1	..	..	1

No. 13.

Number of Days' Work and Kind of Work Performed by Patients.

		1883-4.			Previously reported.		
		Males.	Females.	Total.	Males.	Females.	Total.
Farm	8,784	....	8,784	10,606	....	19,390	
Garden	3,204	16	3,220	3,468	1	6,689	
Yard	3,632	....	3,632	8,122	....	11,754	
Carpenter	256	....	256	534	....	790	
Laundry	1,469	4,994	6,463	1,194	6,905	14,562	
Kitchen	1,839	4,392	6,231	2,697	1,623	10,551	
Centre	1,178	478	1,656	1,646	1,288	4,590	
Hall work.....	8,237	6,441	14,678	14,172	6,454	33,304	
Needle work.....	....	5,111	5,111	....	7,939	13,050	
Walk.....	16,667	18,551	35,218	5,987	10,162	51,367	
Chapel.....	4,134	2,982	7,116	3,796	2,274	13,186	
Assembly.....	3,534	3,797	7,331	3,118	2,365	12,814	

No. 14.

	Males.	Females.	Total.
Number of assaults on patients	319	368	687
Number of assaults on attendants.....	78	160	238
Number of assaults on physicians.....	2	10	12
Attempted suicide.....	1	..	1
Number in restraint during year.....	7	15	22

No. 15.

	1882-3.
Total days' work by males.....	28,599
Total days' work by females	21,432

	Previously reported.
Total days' work by males.....	42,409
Total days' work by females.....	24,209
	<hr/>

We number at the close of the fiscal year 580 patients, or 155 more than we had at the close of the last year.

Our daily average has been 502 patients.

There have been admitted during the last year 125 males and 118 females—total, 243.

We have discharged during the same length of time as recovered 12 males and 3 females — total, 15.

We have discharged as improved 9 males and 7 females — total, 16.

We have discharged as not improved 5 males and 2 females — total, 7; their friends having given bonds for their peaceable behavior and comfortable maintenance.

By death, 29 males and 18 females -- total, 47.

By elopement, 3 males.

We have had but one serious accident during the year, and that occurred to a patient on the hall while resisting an attendant. For some unknown reason that has never been fully and satisfactorily explained, he fell on the floor and fractured the thigh bone, or femor. Two weeks subsequent to the fracture he died suddenly and unexpectedly. A coroner was called and an autopsy was made by Drs. Burr and Spencer. The examination revealed a fatty degeneration of the heart, also an abnormal dilatation of the right ventricle with the thin walls necessarily attendant on such a condition. An inquest was held by the coroner's jury, and their verdict was as follows: "That the deceased, James Cutler, came to his death Thursday, July 17th, 1884, by paralysis of the heart, and that his death was, in our opinion, hastened by injuries received July 3d, 1884, consisting of a comminuted fracture of the thigh at the Chronic Insane Asylum, in the town of Binghamton, county of Broome."

On the 23d day of July, six days after the said James Cutler died, the board of trustees held an adjourned quarterly meeting. The members of the board of trustees present were R. A. Ford, E. Ross, H. G. Rodgers, Charles Davis, F. O. Cable, E. O'Connor, A. Cumming and George Truman. After disposing of the routine business of the meeting they, in connection with a committee of the State Board of Charities, consisting of the Hon. Oscar Craig, Hon. Samuel F. Miller, Dr. Chas. S. Hoyt and the state commissioner in lunacy, Dr. Stephen Smith, held an investigation, endeavoring to ascertain the cause of the injury sustained by James Cutler, the deceased. The attendants, and some of the more coherent and intelligent patients who were present at the time of the injury, and the officer who was called immediately after the accident occurred, were examined at length as to who caused the fall; and the condition in which the patient was found by the medical officer after the attendants had taken off his clothing and put him on the bed. After the examination closed, the following resolution was adopted:

“ *Resolved*, That after hearing the evidence in the matter of the injury to James Cutler, a patient at this asylum, we recommend, in the interest of discipline, the discharge of attendant Giles H. Wight, but we exonerate him from any willful intention or act in connection with the transaction.

July 23, 1884.”

IMPROVEMENTS.

That part of the asylum called Northern Extension has been temporarily converted into dormitories for a quiet class of patients — answering a very good purpose. The original plan of last year should be carried out as soon as an appropriation can be obtained.

A vegetable cellar is very necessary, as we are raising large crops of potatoes and other roots that must be put into cellars or buried in the ground. Last winter, for the want of proper cellar room, we lost hundreds of bushels of potatoes and other truck raised in the garden.

A wood structure can be erected over the vegetable cellar, and finished for a granary and store-room. A general store-room is absolutely necessary, and with a comparatively small expense, the accommodation can be provided in this building.

GAS OR ELECTRICITY.

We are very much in need of more and better light. The present facilities for lighting are altogether inadequate for the comfort and safety of the institution.

We have about 600 burners, and when the building is only fairly lighted the gas-holder will be exhausted in about one hour, and if for any reason the pump is being used for another purpose we are suddenly left in total darkness; when the pump is again started the gas escapes from the burners, and we are in great danger of an explosion, which would be disastrous to human life in an institution of this kind.

We have failed to receive any thing with which to purchase fruit trees and other small fruits. I will suggest that we continue to ask until we receive.

The quantity of milk is altogether too small for the number of patients, and ten cows should be added to those we have at present.

A small flock of sheep will be of use to the institution in the way of subduing wild pastures and furnishing wool for the patients to manufacture into stockings.

We continue to see very good results from the liberal use of commercial fertilizers. The present condition of this farm requires a plentiful supply of enriching material and thorough tilling in order to produce good crops.

I will call your attention to the necessity of a smoke-house. There should be one built as soon as possible, as there was a large

waste last season by reason of a temporary building being burned that was used for that purpose.

We need tools for the carpenters, plumbers and steamfitters. The inconvenience is often very great from not having suitable appliances for the occasion.

LAUNDRY.

A suitable building should be erected for a laundry. The one in present use is unfortunately located in the eastern extension. It is a thoroughfare for all going to and from the asylum, especially that portion of the farm and garden situated east of the building. The sight and odor are often very unpleasant and sometimes disgusting. If it is deemed advisable to remodel the northern extension into dormitories for patients, the boilers now in the cellar should be removed, and it is believed that a building might be so arranged as to answer the double purpose of a laundry and boiler-house combined. There is another great objection to the laundry as at present located—it is very near the main kitchen, and when the doors are open there is a constant draft, carrying foul air throughout the whole building. The room now occupied for said laundry would be valuable for patients' sleeping dormitories, particularly the ironing-room, and the wash-room is needed for other purposes.

FURNITURE.

There was an item in the supply bill of 1884 for \$1,000 to furnish the new detached building, and that item was vetoed by the governor. We have at this time about sixty patients in that building, and whatever furniture is used for them was designed for other wards. We are putting an addition to the cottage, and when completed it will accommodate about twenty-five or thirty patients. Furniture will be needed for that building. The inmates are increasing weekly, and furniture should be added to supply these wants, as we have no surplus from which to draw at the present time.

We need one hundred Hartford bedsteads with the woven wire mattress, as soon as they can be purchased; we should also have two hundred patent felt mattresses; all necessary bedding, to accommodate one hundred patients now in the building, and if we are to extend our accommodation for the insane, provisions should be made by the incoming Legislature to furnish such accommodations with whatever is necessary to make the occupants comfortable. The subject of bedding must be impressed upon the authorities as absolutely and indispensably necessary.

DOUBLE WINDOWS.

Every succeeding year teaches us the necessity of having inside windows in some of the more exposed wards. They are indispensa-

ble to comfort when the wind is blowing strongly from the north-west or south-east. We hope provision will be made the coming winter to have them supplied.

Our farm is not sufficiently large to give occupation to the great number of patients able and willing to labor. That portion of the farm which is cleared, we are getting in fair condition for grass and crops of grain ; economy suggests the best thing for us to do at present is to cut and clear off some forty or fifty acres of timber land and get the same to producing grass. The woodland is worthless in its present condition as the timber is poor and not likely to be more valuable. After cutting fifty acres, there would be left about one hundred, which would be ample for the use of the institution.

ATTENDANTS.

We have employed on the wards forty-eight attendants during the day and three through the night, to look after the sick—filthy and epileptics. We have two night watches, one male and one female, that pass through the wards every hour and look after the building and premises generally.

All epileptics are visited once every hour during the night, and all wet and soiled bed clothing are removed at once.

Since our last report we have temporarily converted the old carpenter, paint and harness shops into dormitories for quiet male patients. It furnishes accommodations for thirty of that class. The little house that was formerly used by the gardener is also occupied by ten patients of the same class.

The detached building for the filthy and violent female patients was completed about the 1st day of July. It is now occupied by those classes, greatly to the relief of the main building and giving a much better opportunity for classification. It accommodates sixty patients ; provision should be made during the coming season for a similar class of male patients, outside of the main building.

The following reports of the steward and matron show the amount of produce raised on the farm and garden, also the stock grown and the stock in our possession on the 30th day of September, 1884. The labor performed in the various departments is also reported, showing the kinds of garments, and the number of each kind made during the year.

FARM PRODUCE.

90 Tons of hay at \$12.....	\$1, 080 00
27 Tons of straw at \$6.....	162 00
40 Tons of corn stalks at \$8.....	320 00
1, 198 Bushels of oats at 40 cents.....	479 20
2, 527 Bushels of potatoes at 40 cents.....	1, 010 80
152 Bushels of wheat at 80 cents.....	121 60
95 Bushels of rye at 60 cents.....	57 00
396 Bushels of corn at 30 cents.....	118 80
272 Pounds of turkey, dressed, at 15 cents.....	40 80

156	Pounds of chickens, killed, at 10 cents.....	\$15 60
2, 085	Pounds of beef, dressed, at 9 cents.....	187 65
240	Pounds of hides at 5 cents.....	12 00
11, 707	Pounds of pork at 6 cents.....	702 42
65, 165	Quarts of milk at 5 cents.....	3, 258 25
8, 595	Dozen of eggs at 22 cents.....	157 57
		<hr/>
		\$7, 723 69
		<hr/>

GARDEN PRODUCE.

96	Bushels of apples at \$1	\$96 00
563	Bushels of beets at 40 cents	225 20
928	Bunches of beets at 3 cents.....	27 84
1,207	Bushels of carrots at 40 cents.....	482 80
7,328	Ears of corn at 1 cent	73 28
83	Bushels of sweet seed corn at 50 cents	41 50
14,800	Heads of cabbage at 4 cents	592 00
7,100	Heads of celery at 4 cents.....	284 00
12,262	Cucumbers at 50 cents per hundred.....	61 31
41,600	Cucumber pickles at 50 cents per hundred.....	208 00
3,987	Heads of lettuce at 2 cents	79 74
567	Musk melons at 5 cents.....	28 35
1,623	Bunches of onions at 3 cents.....	48 69
280	Bushels of onions at 50 cents.....	140 00
180	Bushels of peas at \$1	180 00
2,462	Bunches of pie plant at 5 cents... ..	123 10
300	Bunches of parsley at 1 cent.....	3 00
30	Bushels of peppers at \$1	30 00
405	Bunches of radishes at 5 cents.....	20 25
65	Bushels of spinach at 50 cents.....	32 50
51	Bushels of string beans at 50 cents	25 50
185	Quarts of strawberries at 15 cents.....	27 75
2,525	Summer squash at 1 cent.....	25 25
700	Hubbard squash at 10 cents.....	70 00
28	Bushels of salsify at 50 cents.....	14 00
196	Bushels of tomatoes at \$1	196 00
281	Bushels of turnips at 25 cents.....	70 25
		<hr/>
		\$3,206 31
		<hr/>

FARM STOCK.

30 Cows.	42 Store hogs.
12 Yearlings.	2 horses.
6 Oxen.	200 Chickens.
19 Calves.	2 Ducks.
1 Bull.	32 Turkeys.
7 Mules.	3 Geese.

MATRON'S REPORT.

1413 Sheets.	465 Bed sacks.
1095 Pillow cases.	196 Aprons.
375 Shirts.	15 Strong suits.
328 Gingham dresses.	20 Pairs of knitted stockings.
237 Calico dresses.	789 Towels.
119 Strong dresses.	54 Pairs of ticking suspenders.
3 Worsted dresses.	50 Canton flannel wrappers.
47 Nightdresses.	51 Pairs of canvas mittens.
327 Pairs of drawers.	20 Table cloths.
883 Chemises.	385 Pillow sacks.
2 Night caps.	49 Lawn neck ties.
30 Underwaists.	850 Blankets, hemmed.
341 Skirts.	200 Counterpanes, hemmed.
40 Pairs of Cretonne curtains.	

In looking over the cost of help for the past year, it must be borne in mind that a large amount comparatively has been expended in moving ice-house and meat cooler and building additions for cutting meats, for building carpentershop and hennery, and for raising up one story and nearly rebuilding the old tool-house, and finishing it for the use of outside help, repairing old green-house, for remodeling the nothern extension to accommodate thirty patients, and for repairs made and addition built to gardeners' house to accominodate still another thirty patients.

Besides paying the help necessary to take care of the patients out of the amount under the head of house wages, all of the labor for the above buildings and repairs has been paid from the same fund.

The products of the farm and garden, as shown by the steward's books, amount to \$10,930.00, at prices we should have to pay farmers if we had them to purchase; the expense of running the farm and garden, while raising the above produce, amounts to \$3,528.87, consisting of farm wages \$1,008.54, garden wages \$390, and other expenses \$2,130.33.

ACKNOWLEDGMENTS OF CONTRIBUTIONS.

Religious books and pamphlets from A. B. Smith, who represents the Presbyterian Board of Publication. Magazines and papers from Mrs. E. W. Gregg. Magazines and papers from Capt. L. L. Olmstead. Testaments and hymn books from the Rev. John McVey. Magazines and papers from State Charities Aid Association. Magazines, silks, worsted, ribbons and lace ruffles from Sisson Bros. and Welden. Box from Mrs. Mather, Washington street. Magazines and papers from lady on Court street. Magazines and papers from Mrs. Frederick Weed. Christian cynosure, stranger. Fire-works from Thurber, Whyland & Co. Magazines from Mrs. Frederick Hallock. Magazines and papers from Mrs. Henry Clark. Magazines from Mrs. Charles Davis. Artificial flowers from Mrs.

Theodore Lockwood. Magazines and papers from Mrs. S. K. Stone. Magazines from Mrs. Allen, Front street. The Rev. Dr. Haynes and Professor Clum gave an enjoyable entertainment with stereopticon.

The editors of the following papers have kindly sent their weekly issues, greatly to the delight of the patients (such as can appreciate) coming from the localities in which such papers are published.

Oneonta Herald and Democrat; Oneonta Press; Otego Republican; Susquehanna Ware; Delaware Gazette; Delaware Express; Delaware Republican; Exchanges from W. Smith & Son, Owego, N. Y.; Exchanges from C. H. Heeler, Owego, N. Y.

Religious services have been held in our chapel every Sunday at 3 o'clock, P. M., during the past year by the clergymen of the different denominations, and they have been paid a small compensation for such services.

We continue our entertainments from once to three times per week, thereby giving the patients a little break in the monotony of asylum life. The effect is good. Those that are able to attend look forward to the coming event with great pleasure. It furnishes food for many a weak intellect.

There is connected with the asylum a very good orchestra and cornet band, composed of the employees and one patient. They furnish the music for the dancing and other entertainments and amusements. The music has been furnished by these men without extra charge; we have given them the pay only of mechanics and workmen filling their respective stations. We have purchased the music arranged for the orchestra and band, and have furnished the strings, and kept their instruments in repair. The institution is open for inspection at any and all times by officials and friends of the patients, and by the public in general any day in the week, except Saturday and Sunday, from two to five, P. M.

We have been visited the last year by the State Commissioner in Lunacy, the State Board of Charities, members of the Legislature, superintendents of other asylums, committees of a number of boards of supervisors, chief examiner of Civil Service and lieutenant governor.

We congratulate ourselves on having a good corps of help, occasionally it becomes necessary to discharge for various causes, but considering the number we have employed the necessity for severe discipline is quite rare. We hold them to a strict performance of their duties.

We have frequent meetings of the entire corps of the asylum for the consideration of the best interests of the institution and for instructing attendants recently employed.

The willing and faithful of those whose duty it is to care for the unfortunates committed to our charge, have the good wishes of all connected with this institution. In looking over the statistics of labor performed by the patients for the last fiscal year, we find the following results :

Total days work by males.....	28, 599
Total days work by females.....	21, 432
	<hr/>
Total.....	50, 031
	<hr/>

Distributed among the various departments as follows: Farm, 8,784; garden, 3,204 males, 16 females; yard, 3,632; carpenter, 256; laundry, males 1,469, females 4,994; kitchen, 1,839 males, 4,392 females; centre, 1,178 males, 1,478 females; hall work, 8,237 males, 6,441 females; needle work, 5,111.

The walking is equal to 35,218 persons going out one day.

Those attending chapel are equal to 7,116 persons attending one service.

The number present at assemblies is equal to 7,331 attending one assembly.

The number of patients assaulting each other, 687; the number of patients assaulting attendants, 238; the number of patients assaulting physicians, 12; the number of patients attempting to commit suicide, 1; the number of patients in restraint during the year, 7 males and 15 females.

The males going out to work and to walk six days out of seven are equal to fifty-nine per cent of the whole average number for the year.

The females that have worked and those that have been out to walk six days out of seven are equal to fifty-one per cent of the whole average number for the year.

Drs. Eastman and Wilsey, the associate physicians, are constant in season and out of season; always ready and willing to meet any emergency. The care and duties devolving upon their positions are diversified and oftentimes very perplexing. They visit the wards twice every day, and as much oftener as is necessary for the benefit of the sick and suffering. Their whole time is devoted to the arduous performance of their respective charges.

Mr. Edwin Evans, the steward, continues to look after the purchases and other duties connected with the asylum in a very satisfactory manner; ever ready to do what is thought best for the welfare and future growth of the institution.

The matron, Mrs. Smith, supervises the household affairs, the sewing department, and visits the female wards as often as is consistent with her other numerous duties, all of which are done in a careful, conscientious and faithful manner.

Loyalty to the best interests of the Institution prevail with each and every resident officer.

At the close of the fiscal year we find our numbers have steadily increased until the Institution is filled to its utmost capacity.

To the State officials belongs the credit of establishing this asylum for poor, suffering, deluded humanity, and to the board of trustees and your appointees belong the duties of its successful management.

We hope the course that has been pursued by the resident officers is satisfactory to you, gentlemen, who alone are responsible to the public for the humane treatment of those placed in our charge and for the safe keeping and judicious care of all property belonging to the Institution.

In closing this report we should do injustice to our feelings and to your honorable board if we did not acknowledge the generosity and kindness with which you have treated us while discharging our respective duties. Thanking you for the confidence you have reposed in us during the past, we shall endeavor to do everything in the future in our power to merit that same confidence and respect.

T. S. ARMSTRONG, M. D.,
Superintendent.

BINGHAMTON ASYLUM FOR CHRONIC INSANE.

DIETARY.

	BREAKFAST, 7:15 A. M.	DINNER, 12 M.	SUPPER, 5 P. M.
Sunday,	Hash. Bread, Butter. Coffee, Tea.	Cold Meat, Bread. Potatoes. Boiled Beets.	Bread, Butter. Ginger Bread. Tea.
Monday,	Meat Stew. Bread, Butter. Coffee, Tea.	Pot Pie. Bread. Vegetables.	Bread, Cheese. Oat Meal. Syrup, Tea.
Tuesday,	Hash. Bread, Butter. Coffee, Tea.	Pork and Beans, Bread. Boiled Potatoes. Boiled Rice, Syrup.	Bread, Butter. Rusk, Pickles. Tea.
Wednesday,	Meat Stew. Bread, Butter. Coffee, Tea.	Roast Beef. Vegetables. Bread.	Baked Potatoes. Bread, Butter. Tea.
Thursday,	Meat Stew. Bread, Butter. Coffee, Tea.	Vegetable Soup. Boiled Potatoes, Rice. Bread, Syrup.	Bread, Cheese. Sweet Cake. Pickles, Tea.
Friday,	Hash. Bread, Butter. Coffee, Tea.	Codfish, Boiled Potatoes. Pickles or Tomatoes. Boiled Cabbage, Bread.	Bread, Butter. Oat Meal, Syrup. Tea.
Saturday,	Meat Stew, Bread. Boiled Potatoes, Butter. Coffee, Tea.	Boiled Beef, Potatoes. Boiled Onions. Bread.	Bread, Butter. Sauce. Tea.

Milk and sugar served with tea and coffee.

Extra diet is furnished when ordered by physicians.

ADMISSION AND SUPPORT OF PATIENTS.

EXTRACT FROM CHAPTER 446, LAWS OF 1874.

Commitment of the Insane.

SECTION 1. No person shall be committed to or confined as a patient in any asylum, public or private, or in any institution, home or retreat for the care and treatment of the insane, except on the certificate of two physicians under oath, setting forth the insanity of such person. But no person shall be held in confinement in any such asylum for more than five days, unless within that time such certificate be approved by a judge or justice of a court of record of the county or district in which the alleged lunatic resides, and said judge or justice may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving of such certificate, and said judge or justice may, in his own discretion, call a jury in each case to determine the question of lunacy.

§ 2. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of securing his commitment to an asylum, unless said physician be of reputable character, a graduate of some incorporated medical college, a permanent resident of the State, and shall have been in the actual practice of his profession for at least three years, and such qualifications shall be certified to by a judge of any court of record. No certificate of insanity shall be made, except after personal examination of the party alleged to be insane, and according to forms prescribed by the State Commissioner in Lunacy, and every such certificate shall bear date of not more than ten days prior to such commitment.

The following is the form of medical certificate prescribed by the Commissioner in Lunacy in these cases :

STATE OF NEW YORK, }
County of , } ss.

I, , a resident of , in the county aforesaid, being a graduate of , and having practiced as a physician, hereby certify, under oath, that on the day of I personally examined , of [Here insert sex, age, married or single, and occupation] and that the said is insane, and a proper person for care and treatment, under the provisions of chapter 446 of the Laws of 1874.

I further certify that I have formed this opinion upon the following grounds, viz. :

[Here insert facts upon which such an opinion rests.]

And I further declare that my qualifications as a medical examiner in lunacy have been duly attested and certified by

[*Here insert the name of judge granting such certificate.*]

Sworn to and subscribed before me, {
this day of , 188 . }

STATE OF NEW YORK, }
County of , } ss.

I hereby certify that , of is personally known to me as a reputable physician, and is possessed of the qualifications required by chapter 446 of the Laws of 1874, and I approve of the above certificate.

.....
Judge of .

FORM OF AN ORDER FOR ADMISSION OF A PATIENT AT COUNTY EXPENSE.

To the Superintendent of the Binghamton Asylum for the Chronic Insane:

You are hereby authorized and requested to receive into the Binghamton Asylum for the Chronic Insane, , an insane person; provide for as may be necessary, and charge the expense of maintenance to county.

Dated

Signed

Sup'ts of Poor, County.

Bills will be made out and transmitted quarterly in advance to county treasurers on the first days of January, April, July, and October by the treasurer of the asylum. Town and county officers, charged with the duty of bringing patients to the asylum, should see that such patients are in a cleanly condition and free from vermin. Patients must never be sent to the asylum from county houses or other localities infected with small pox, measles or other contagious diseases.

Applications for the admission of patients should be made in advance of bringing them to the asylum. Friends of patients, when known, will be promptly notified in the event of serious illness or death, and all inquiries respecting the same will be answered without delay.

All correspondence concerning patients should be addressed to Dr. T. S. Armstrong, Superintendent of Binghamton Asylum, Binghamton, N. Y.

THIRTY-FOURTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

NEW YORK STATE ASYLUM FOR IDIOTS,

For the Year 1884.

TRANSMITTED TO THE LEGISLATURE JANUARY 15, 1885.

ALBANY:
WEED, PARSONS AND COMPANY.
LEGISLATIVE PRINTERS.
1885.

TRUSTEES.

GEORGE F. COMSTOCK,
FREDERICK D. HUNTINGTON,
FREDERICK HYDE, M. D.,
NATHAN F. GRAVES,

ALFRED WILKINSON,
FRANK HISCOCK,
GEORGE B. SLOAN,
RALPH FRISSELLE.

State Officers — Ex-officio Trustees.

DAVID B. HILL, *Governor.*

, *Lieutenant-Governor.*

JOSEPH B. CARR, *Secretary of State.*

ALFRED C. CHAPIN, *Comptroller.*

WILLIAM B. RUGGLES, *Supt. of Public Instruction.*

Permanent Chairman.

FREDERICK D. HUNTINGTON.

Secretary.

ALFRED WILKINSON.

Treasurer.

ALFRED WILKINSON, JR.

Executive Committee.

ALFRED WILKINSON,

NATHAN F. GRAVES,

RALPH FRISSELLE.

OFFICERS.

Superintendent.

JAMES C. CARSON, M. D.

Matron.

Miss ALVIRA E. WOOD.

Assistant Matrons.

Miss MILDRED A. PETERSON,

Miss EMILY E. RADWAY.

Housekeeper.

Mrs. MARY A. YOUNG.

Teachers.

Miss SARAH P. YOUNG,

Mrs. OLIVE M. SAWTELLE,

Miss MARY F. COZZENS,

Miss E. JOSEPHINE BALCH,

Mrs. MARIA E. COOK,

Miss IDA KIPP,

Mrs. LAURA EATON,

Mr. JAMES EGGENBERGER.

Steward.

BENJAMIN N. EASTMAN.

In Charge of the Custodial Branch at Newark.

Mr. and Mrs. C. C. WARNER.

STATE OF NEW YORK.

No. 19.

IN ASSEMBLY,

JANUARY 15, 1885.

THIRTY-FOURTH ANNUAL REPORT OF THE TRUSTEES OF THE NEW YORK ASYLUM FOR IDIOTS,

To the Legislature of the State of New York:

Agreeably to the provisions of the act establishing this institution, the undersigned trustees respectfully submit this their thirty-fourth annual report.

RESOURCES FOR THE YEAR.

Balance in bank, October 1, 1883.....	\$2 87
In hands of superintendent, October 1, 1883.....	223 73
State appropriation for fiscal year.....	53,500 00
Receipts from counties for clothing State pupils.....	6,113 05
Receipts from pay cases, board, instruction and clothing.	5,843 57
Receipts from sale of farm products.....	65 40
Receipts from sale of productions of shop.....	142 73
Total.....	<u>\$65,891 35</u>

CLASSIFIED SUMMARY OF EXPENDITURES.

*On current expense account of the New York Asylum for Idiots for
the Year ending September 30, 1884.*

Provisions, class 1, including flour, etc.....	\$3,978 43
Provisions, class 2, including meats, etc.....	6,669 57
Provisions, class 3, including dried fruits, canned goods, etc.....	545 81
Provisions, class 4, including fruits.....	321 88
Provisions, class 5, including vegetables.....	336 06
Provisions, class 6, including milk, butter, etc.....	3,730 18
Provisions, class 7, including sundry groceries.....	2,371 18
Total provisions.....	<u>\$17,953 11</u>

Laundry supplies	\$772 35
Household supplies.....	414 76
Fuel.....	5,530 31
Lights	1,916 65
Water	780 00
Ice	93 50
Repairs and improvements.....	5,060 87
Furniture.....	1,638 22
Clothing.....	5,106 06
Stable	2,284 06
Farm and garden	1,056 92
Books, stationery and apparatus	432 62
Salaries.....	7,077 72
Wages.....	10,098 67
Freight and express.....	186 28
Postage.....	88 44
Funeral expenses.....	176 94
Drugs and medicines	377 40
Money to boys.....	7 00
Traveling expenses of trustees	105 50
Traveling expenses of superintendent.....	10 08
Traveling expenses of steward	18 14
Traveling expenses of pupils.....	15 92
Amusements	18 25
Brush shop.....	299 30
Miscellaneous expenses	45 41
Total	<u>\$61,564 48</u>

From an examination of the books of the asylum we are able to report that on the 30th day of September, 1884, there were outstanding obligations and cash assets in the following amounts:

Outstanding Indebtedness, September 30, 1884.

Salaries of officers and teachers for the quarter ending September 30, 1884	\$433 36
* September bills unaudited	3,372 95
Total liabilities	<u>\$3,806 31</u>

Assets, September 30, 1884.

Balance in treasury.....	\$3,173 52
Balance in hands of the superintendent	1,153 35
Due from individuals for board, instruction and clothing.....	1,400 00
Total assets	<u>\$5,726 87</u>

* The monthly bills of the asylum are not audited till the first Monday of the succeeding month.

The apparent exhibit of assets over liabilities, in the resources of the asylum since the 1st of October, 1883, is chiefly accounted for by the fact, that the supply of coal on hand is considerably less than has been usual heretofore at the close of the fiscal year.

The numbers during the coming year will probably be increased, both in the educational and custodial departments. It is believed, however, owing to the prevalent cheapness of all general supplies and provisions, a larger appropriation for maintenance than was made last year, will not be required this year, namely, \$63,000 for the former, and \$20,000 for the latter.

At the present writing this institution has in charge nearly 500 persons of both sexes, 300 of whom, mostly children, are provided for at the main asylum, 140 adult females in the Custodial Branch at Newark, and about forty of the older and larger boys in the cottage built two years ago upon the farm at Fairmount. The provision made for these boys upon this farm was a new feature in the history of the institution, and the experience of the year at this place has proved eminently satisfactory in all respects, their occupation at farm work being desirable, and a kind to which they can adapt themselves better and easier than almost any other. If further provision is to be made for this class of boys, more land should be acquired, as the present farm only comprises eighty-seven acres, and is hardly sufficient to keep a larger number employed. We have been of the opinion, however, that suitable and permanent provision should first be made for feeble-minded adult females as the class requiring more important protection and custody. For this purpose, and in accordance with this view, with the authority given and the means appropriated by the Legislature of 1884, a new building located about twenty-five rods to the west and rear of the present buildings was commenced in August last. This building is now all inclosed and good progress being made toward its early completion. It consists of a series of framed cottage dormitories grouped together in the form of a triple cross, two stories high, with outside brick walls, and comprises eight apartments twenty feet by forty-six feet, three apartments thirty-six feet by forty-two feet, besides supervisors' rooms, attendants' rooms, dining-room, kitchen, clothes-rooms, bath-rooms and other conveniences. The whole has a frontage of 200 feet, the central extensions 115 feet, and flank wings at extreme ends fifty feet. The trimmings are of stone, the roof of slate, and the cornices of galvanized iron. Being built in this manner and grouped in this way together into one structure, the cost of building will be very much reduced, and ample accommodations provided for 160 inmates, more than double the number at first contemplated. An appropriation of only \$3,000 will be needed to completely place the building in readiness for the heating apparatus, plumbing and furniture. To warm it, two new boilers will be required at the main boiler-house similar to those now in use, which, together with the necessary steam pipes and radiators, the sum of \$6,000 will be sufficient according to our estimates; \$1,500 will also be required for gas fixtures and plumbing.

As soon as these dormitories can be made ready for occupancy, the

inmates of the Custodial Branch at Newark, now under the care and authority of this board of trustees, will be transferred to them, and such additional cases of the same class received as the accommodations will admit.

The erection of the fire-proof corridors at the north and south ends of the main central building, for which an appropriation was granted last year, was not commenced until late in the season, and owing to a failure on the part of the contractor in securing the requisite iron material at the expected time, the work was delayed, but is now approaching completion.

The barn and sheds at the Fairmount farm were entirely overhauled and rebuilt during the summer months. As now arranged, the ground floor of the barn is fitted up with stalls for horses and cattle, the loft above being reserved for the hay, grain and other products of the farm. A shed attachment provides shelter for wagons, tools and farm implements.

Your attention is respectfully invited to the recommendations of the superintendent, and his reasons therefor regarding the renewal and reconstruction of the steam and water piping throughout certain portions of the present buildings; for the erection of a new laundry building; for providing outside hospital accommodations for the sick, and preventing the spread of epidemic or contagious diseases among the inmates. With these recommendations we are in hearty accord, and believe them to be both important and essential to the growing wants of the institution, and its healthful, convenient and economical administration.

To recapitulate: Appropriations are asked and required for the purposes and amounts specified, as follows:

For completing and furnishing the new cottage building.	\$3,000 00
For two boilers, setting the same, and heating apparatus.	6,000 00
For gas fixtures, water pipes and plumbing.....	1,500 00
For renewing and reconstructing the water and steam pipes in the old buildings.....	5,000 00
For a new laundry building.....	9,000 00
For erecting and furnishing an outside two-story frame hospital building.....	3,000 00
	<hr/>
For all purposes.....	\$27,500 00
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At the time our report was presented last year, we supposed the services of Dr. G. A. Doren, as the superintendent of this asylum, had been permanently secured; certain unexpected contingencies, however, arising soon after in the work of rebuilding the Columbus Asylum with which he had been previously connected for a period of nearly twenty-three years, he felt obliged to withdraw his acceptance of the position here, and much to the regret of this board, resumed his work at the Columbus institution.

Upon the retirement of Dr. Doren, Miss A. E. Wood, matron, was continued as the acting superintendent. Miss Wood had been continuously in the service of this asylum since its organization in 1851, and other than medical, possessed a thorough knowledge of all duties

required. In this connection it is just and proper to say, that she discharged the duties devolving upon her with commendable satisfaction, thus again exemplifying the value to the institution a long, faithful and intelligent experience gives.

At the annual meeting of the board held on the eighth of October, Dr. J. C. Carson, of New York, was unanimously elected superintendent, and commenced his duties a few weeks later. Dr. Carson had an experience of nearly thirteen years as an assistant physician at the Willard Asylum for the Insane, and for eighteen months prior to his appointment here was the superintendent of the New York Institution for the Deaf and Dumb.

Since our last report was made one change has taken place in our membership. Our late secretary and treasurer, Hon. Allen Munroe, for thirty years a member of this board, was removed by death October 6, 1884. An appropriate resolution relative to the sad occasion was adopted by the board at the annual meeting held two days later, and may be found in the appendix of this report. At the same meeting, Mr. Alfred Wilkinson was elected secretary of the board, and Mr. Alfred Wilkinson, Jr., treasurer of the asylum.

Before closing their report the trustees desire to make public expression of their confidence in and gratitude to the officers, teachers, attendants and employes, for their general faithfulness, the conscientious discharge of their duties, and their interest in the welfare of the asylum so manifest throughout the year.

ALFRED C. CHAPIN, *Comptroller*,
W. B. RUGGLES, *Supt. Public Instruction*,
F. D. HUNTINGTON,
GEORGE F. COMSTOCK,
N. F. GRAVES,
FREDERICK HYDE,
GEORGE B. SLOAN,
R. FRISSELLE.

SUPERINTENDENT'S REPORT.

To the Trustees of the New York Asylum for Idiots:

GENTLEMEN — In compliance with the requirements of the law and of your board, I have the honor to present to you herewith, as obtained from the books and official records kept, the following report exhibiting the statistics and operations of this institution for the fiscal year ending September 30, 1884.

Movement of the Population.

	Males.	Females.	Total.
Present at the beginning of the year	191	129	320
Absent temporarily at the beginning of the year	5	9	14
Since admitted	18	19	37
Readmitted	1	1	2
Returned after temporary absence	27	23	50
	<hr/>	<hr/>	<hr/>
Total for the year	242	181	423
	<hr/>	<hr/>	<hr/>
Discharged	10	21	31
Absent temporarily	30	24	54
Died	5	3	8
Absent temporarily at end of the year	8	2	10
Present at the close of the year	189	131	320
Average daily attendance	193	133	326
	<hr/>	<hr/>	<hr/>

Total number of weeks' board furnished to the pupils ..	16,952
Total cost of maintenance and instruction of pupils, including all expenses except clothing	\$56,458 42
Weekly cost of maintenance and instruction for each pupil	3 33
	<hr/>

The general health of the asylum inmates and of the entire household throughout the year was excellent. Three cases of scarlet fever occurred among the pupils, none of which were fatal. No other contagious or epidemic disease prevailed. As noted above, eight deaths occurred among their numbers. The causes of death as given were as follows :

Consumption	3
Pneumonia	2
Paralysis	1
Peritonitis	1
Acute dropsy	1
Total	<u>8</u>

Of these, five were males and three were females. The average age of those who died was sixteen years.

The matron presents the following report of sewing done by the boys and girls :

Boys' List.

Overalls	110	Blankets hemmed	153
Shirts	173	Pillow ticks	12
Collars	215	Pillow cases	119
Neckties	186	Sheets	156
Suspenders	30	Table cloths	4
Caps	18	Towels	126
Bean bags and pincushions..	55	Ruffling (yards)	91
School puzzles	49	Door mats	35
Holdes	44	Aprons	9
Buttonholes on girls' dresses.	140	Bibs	356
Bed spreads	13		<u> </u>

Girls' List.

Dresses	158	Ruffles	303
Sheets	138	Hospital articles	10
Pillow covers	213	Mattress covers	20
Spreads	54	Bibs	48
Towels	230	Napkins	13
Christmas bags	175	Wash cloths	42
Night dresses	6	Suspenders	12
Collars	43		<u> </u>

The steward reports the following as the products of the farm and garden for the year ending September 30, 1884.

Apples, 700 bushels at 50 cents	\$350 00
Beans, String, 65 bushels at \$1.00	65 00
Beans, Butter, 6 bushels at \$1.50	9 00
Beans, Lima, 9 bushels at \$1.50	13 50
Beets, Green, 210 bushels at 50 cents	105 00
Beets, Garden, 350 bushels at 30 cents	105 00
Beets, Farm, 800 bushels at 25 cents	200 00
Cabbage, Early, 900 heads at 5 cents	45 00
Cabbage, Late, 3,250 heads at 4 cents	130 00
Currants, 10 bushels at \$2.00	20 00
Corn, Sweet, 180 bushels at 50 cents	90 00

Cucumbers, hot, 120 dozen at 50 cents	\$60 00
Cucumbers, pickle, 28 bushels at \$1	28 00
Carrots, Early Horn, 50 bushels at 35 cents.....	17 50
Carrots, Long Orange, 300 bushels at 35 cents	105 00
Celery, 2,500 heads at 4 cents.....	100 00
Grapes, 2,000 pounds at 5 cents..	100 00
Gooseberries, 50 quarts at 10 cents	5 00
Hay, 57 tons at \$10	570 00
Lettuce, 4,000 heads at 2 cents	80 00
Milk, 65,700 quarts at 4 cents	2,628 00
Asparagus, 700 bunches at 4 cents	28 00
Crab apples, 6 bushels at \$1.....	6 00
White beans, 3 bushels at \$3	9 00
Corn stalks, 3 tons at \$8.....	24 00
Oats, 550 bushels at 40 cents	220 00
Pears, Bartlets, 150 bushels at 50 cents.....	75 00
Pears, Bergamot, 50 bushels at \$1.25	62 50
Pears, Seckel, 135 bushels at \$2	270 00
Peas, 130 bushels at \$1	130 00
Potatoes, 1,360 bushels at 40 cents	544 00
Pumpkins, 20 dozen at 50 cents	10 00
Peppers, 7 bushels at \$1	7 00
Parsnips, 200 bushels at 75 cents	150 00
Pie Plant, 900 bunches at 2 cents	18 00
Pork, 6,500 pounds at 5 cents	325 00
Raspberries, 250 quarts at 6 cents.....	15 00
Radishes, 600 bunches at 2 cents.....	12 00
Spinach, 300 bushels at 25 cents	75 00
Squash, Summer, 45 bushels at 60 cents.....	27 00
Squash, Winter, 3 tons at \$30	90 00
Turnips, Strap Leaf, 375 bushels at 30 cents	112 50
Turnips, Sweet, 350 bushels at 40 cents	140 00
Tomatoes, 325 bushels at 50 cents.....	162 50
Cauliflower, 400 heads at 5 cents.....	20 00
Onions, 3,000 bunches at 4 cents	120 00
Onions, 300 bushels at 75 cents.....	225 00
Sowed corn, 50 tons at \$8	400 00
Oat straw, 8 tons at \$8	64 00
<hr/>	
\$8,167 50	
<hr/>	

Having received the appointment of superintendent of the asylum in October last, and not until after the close of the fiscal year, the operations and general administration of its affairs are only familiar to me except as obtained from inquiry and examination of the books and official records.

To become a successor of such an eminent and experienced physician and gentleman as the lamented Dr. Wilbur, and without special experience in this particular field of labor, to carry on a work he began and with such marvelous success conducted for a period of over thirty years, was, under the circumstances, a position not easily assumed without a possible misgiving.

In looking over his long and successful administration, and viewing the prosperity and reputation of the institution that has always attended it throughout its history, the future opens out a vast work that requires a resolution it is hoped may not fail in its faithful performance. From close and careful observation, a strict attention and devotion to duty on my part, with a corps of loyal assistants trained to the work under the care and direction of the master mind, that so long and so wisely guided the fortunes of this tender charity, to aid my efforts, together imparts a courage to forecast some degree of hope and promise. The special aim of the institution, the education of the idiotic and imbecile youth of this State, and all that pertains to their general mental and physical improvement and development will continue to be the foremost object sought.

Recommendations.

From the brief period of observation of the special and pressing wants of the asylum that I have had, I would respectfully renew the recommendations made to you last year by my predecessor, Dr. Doren, and according to plans and estimates made under his direction regarding the erection of a new laundry building, and of certain desirable changes in the steam and water pipes throughout the central and north buildings. The laundry and bakery, now under one roof, were erected years ago before many of the later accommodations were provided or even contemplated. They are much too limited in size and capacity to permit the proper and regular performance of work, always of such absolute necessity to be performed promptly. The new cottage building now in process of erection, and to be occupied with one hundred and sixty additional inmates during the coming season, will still more materially tend to embarrass the convenient performance of this very essential work. Besides, the walls of the present laundry are badly cracked, sprung outward, and only kept from tumbling down by props, stays and other extra support. Even with these precautions the absolute safety of the building is questionable. In my judgment a new laundry building and better equipments are among the first necessities of the institution to be considered.

The water and steam pipes of the central and north buildings were unfortunately originally placed within the partition walls, and under the cement floors of the basements. The main water supply pipes in these buildings are of iron, while many of the connections are of lead. The expansion and contraction of these metals are not always equal, and at their points of union are frequently springing a leak, causing not only damage and injury to the walls, but defacing them, and entailing upon the institution much expense and inconvenience. The steam pipes to the north wing extensions were laid ten or more years ago, many of them beneath the cement flooring or under the ground without sufficient protection from the elements, and in almost inaccessible places. They are becoming badly rusted, are constantly bursting, producing frequent and heavy expense for repairs, and oftentimes great discomfort while the repairs are being made. Careful estimates for their renewal and reconstruction have been prepared and are submitted.

In a large household like this, hospital facilities and conveniences are always needed. With the present arrangements of the house there is no convenient way of caring for the sick, or of entirely isolating them from those that are well. Fortunately, in the past, the asylum has been remarkably exempt from serious outbreaks of epidemic or contagious diseases. It would be pleasant to know that this condition of things might always continue. The history of other large institutions, however, would hardly warrant us in entertaining a belief in such marked immunity for all future. If so, is it not wise and prudent for us to be prepared? As it is now, certain rooms in the house are set apart and occupied by a few sick and ailing ones, or held in reserve for those who may become so. With so many children and youth as are here provided for under one roof, we are particularly liable at any time to an outbreak of some form of epidemic or contagious disease, especially some one of those forms that so commonly prevail among children. In order to be prepared to meet such emergencies, and to provide at other times better and separate facilities for the care of the sick, I would recommend the erection of a small two-story and inexpensive frame building, at a proper, safe and convenient distance from the present buildings, to be used exclusively for hospital purposes. In our judgment this building should provide room for about twenty beds, ten of each sex, and be placed under the immediate charge of a trained nurse, who will reside in the building, and be on hand to give constant attendance. It is believed such a building would ordinarily, in the absence of any prevailing disease, relieve the asylum proper from all sick, feeble and helpless inmates, and at the same time permit the reception of quite an additional number of pupils into the parts of the house now necessarily used and reserved for hospital purposes.

At the present writing the following cases are cared for in four separate rooms, in which are sixteen beds; two cases of consumption, two helpless paralytics, two helpless epileptics, one case of scabies recently admitted, and one of typho-malarial fever, nine in all, three boys and six girls. In a small detached hospital these cases could all be better and more conveniently attended to by one nurse, and the sixteen beds in the four rooms now occupied by them would soon be taken by new pupils, who are now refused admission for want of sufficient accommodations. Plans and estimates for this building and other work recommended are herewith respectfully submitted for your inspection and approval.

CONCLUSION.

To Miss Wood, matron, and to Mr. Eastman, steward, for their kindly aid and cordial co-operation I owe grateful acknowledgment. Their knowledge and familiarity from long experience with the conduct of affairs and the methods of administration in vogue, combined with a cheerful willingness to perform all duties required, made them of special benefit to the institution while the vacancy in this office existed.

To you, also, gentlemen, I am especially grateful for repeated assurances of your confidence in commencing this work; for the uniform

courtesy with which you have listened to my frequent appeals for counsel and advice ; and for the kindness and consideration shown to me personally.

Respectfully submitted,

JAMES C. CARSON,

Superintendent.

SYRACUSE, *December 23*, 1884.

TREASURER'S REPORT. I

Alfred Wilkinson, Jr., Treasurer of the New York Asylum for Idiots, in account current with the State of New York, for cash received and expended for the general supplies, and the salaries and wages of officers, teachers, attendants and servants of said asylum, during the year ending September 30, 1884.

RESOURCES FOR THE YEAR.

Balance in bank, October 1, 1883.....	\$2 87
In hands of superintendent, October 1, 1883.....	223 73
State appropriation for fiscal year.....	53,500 00
Receipts from counties for clothing State pupils.....	6,113 05
Receipts from pay cases, board, instruction and clothing.	5,843 57
Receipts from sale of farm products.....	65 40
Receipts from sale of productions of shop.....	142 73
Total.....	<u>\$65,891 35</u>

DISBURSEMENTS.

Warrants of executive committee for quarter ending December 31, 1883.....	\$13,457 57
Bills paid by steward for quarter ending December 31, 1883.....	980 78
Warrants of executive committee for quarter ending March 31, 1884.....	15,569 41
Bills paid by steward for quarter ending March 31, 1884.	1,412 38
Warrants of executive committee for quarter ending June 30, 1884.....	15,295 51
Bills paid by steward for quarter ending June 30, 1884..	1,274 23
Warrants of executive committee for quarter ending September 30, 1884.....	1,440 69
Balance in bank, October 1, 1884.....	3,173 52
Balance in hand of superintendent, October 1, 1884....	1,153 35
Total.....	<u>\$65,891 35</u>

RECEIPTS AND PAYMENTS ON ACCOUNT OF BUILDING.

Receipts.

To cash received from State Comptroller on building account, September, 1884, chap. 551, Laws of 1884.....	<u>\$10,000 00</u>
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Payments.

By cash paid from appropriation, chap. 551, Laws of 1884, as per vouchers and contract rendered Comptroller, September 24, 1884.....	\$2,500 00
By balance in hands of treasurer, October 1, 1884.....	7,500 00
Total.....	<u>\$10,000 00</u>

NEW YORK STATE ASYLUM FOR IDIOTS, }
SYRACUSE, N. Y., *January 14, 1885.* }

We certify that we have examined the above statement, with tables annexed; have compared it with the treasurer's books and with the various books kept at the asylum, and the bank book, as also the vouchers for the moneys expended, and find the same correct.

N. F. GRAVES,
R. FRISSELLE,
Executive Committee.

REPORT OF THE SPECIAL COMMITTEE.

The committee of the board of trustees charged with the special oversight of the Custodial Branch of this institution for adult, idiotic and imbecile females herewith present their report of its affairs for the year ending September 30, 1884.

The following are the statistics for the year :

Present at the beginning of the year.....	141
Admitted since.....	11
	<hr/>
Total for the year.....	152
	<hr/> <hr/>
Discharged.....	9
Died.....	7
Present at the close of the year.....	136
Average number during the year.....	140
Total number of weeks' board furnished the inmates...	7,280
Total expenditures, includes board, clothing and instruction.....	\$14,493 58
Weekly cost per inmate.....	1 99

The causes of death were as follows :

Consumption.....	3
Acute nephritis.....	1
Typho-malarial fever.....	1
Intestinal obstruction.....	1
Cerebral hemorrhage.....	1
	<hr/>
Total.....	7
	<hr/> <hr/>

The following is a summary of the receipts and disbursements :

Receipts.

Balance in bank, October 1, 1883.....	\$2,514 65
In hands of superintendent, October 1, 1883... ..	124 92

State appropriation for fiscal year.....	\$15,000 00
From pay case.....	55 00
Total receipts.....	<u>\$17,694 57</u>

Disbursements.

Provisions, class one.....	\$1,462 23
Provisions, class two.....	1,522 11
Provisions, class three.....	84 20
Provisions, class four.....	91 19
Provisions, class five.....	250 07
Provisions, class six.....	1,192 15
Provisions, class seven.....	599 94
Total provisions.....	<u>\$5,201 89</u>

Laundry supplies.....	\$127 17
Household supplies.....	57 06
Fuel.....	863 77
Lights.....	179 41
Ice.....	38 49
Repairs and improvements.....	282 44
Furniture.....	358 22
Clothing.....	870 77
Stable.....	34 07
Farm and garden.....	27 17
Books, stationery, etc.....	64 79
Salaries.....	2,344 00
Wages.....	2,387 11
Freight, express and telegraph.....	55 90
Postage.....	14 00
Funeral expenses.....	94 50
Liquors.....	16 40
Drugs and medicines.....	194 84
Traveling expenses.....	292 47
Amusements.....	11 79
Miscellaneous expenses ; rent of buildings and land....	977 32
Total disbursements.....	<u>\$14,493 58</u>

Outstanding indebtedness, October 1, 1884.

September bills unaudited.....	<u>\$860 11</u>
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Assets October 1, 1884.

Balance in treasury, October 1, 1884.....	\$3,054 20
Balance in hands of superintendent, October 1, 1884....	146 79
Total assets.....	<u>\$3,200 99</u>

The Custodial Branch of the New York State Asylum for Idiots was opened for the reception of cases and commenced operations under the control and direction of this board of trustees six years ago. The chief and special object intended was the care, custody and protection of a class of adult female idiots and imbeciles of the child-bearing age. It being the first attempt of the kind in the State, and in fact in the country, to provide for a special class of idiots requiring simply custodial care, it was in one sense a matter of experiment, and at that time so considered and understood by its projectors. For this purpose an unoccupied and unfinished school-building located in the town of Newark, Wayne county, was accordingly leased for a term of years, fitted up, furnished and put in order for the reception of inmates in the summer of 1878. How well it has performed its mission and met the want for which it was established, the previous reports of this committee and of the State Board of Charities will give ample and abundant testimony.

The experience of its operations for the past year has not been in any sense materially different from that of previous years. The one hundred and fifty-two girls it has provided for have at all times been kept in a cleanly and presentable condition, properly fed, comfortably clothed and protected from the community and the dangers of the county poor-house system to which many had been to their ill fortune previously surrounded.

As an evidence of the actual necessity of maintaining this or some other similar establishment of its nature, it is but proper to say, that of the girls already received under its protection, about twenty per cent of the number had, prior to their admission, borne illegitimate children, several of them more than one, and one as many as four. These conditions came about in nearly every instance while residents of the county poor-houses, and as the result of a loose and inefficient system of supervision permitting an unfortunate and scandalous mis-association of the sexes. The result already accomplished has been not only to awaken the attention of the poor authorities to a greater vigilance over this class of cases, but also, especially to relieve the various counties of a source of their increasing dependents, and when fully considered in all its significance has indeed become a blessing of large proportions to the future welfare of the State.

It has besides all this accomplished still another happy result in proving itself a training school for these girls to pursuits and habits of industry. As a matter of record, when they were brought from their homes and from the county poor-houses to this place, save two or three exceptions, none of the others knew how to sew even as much as to hem properly an ordinary garment, or to do the simplest kind of work. Now there are from fifteen to twenty of the present number who can operate the sewing machine, many of them skillfully. About thirty are kept at sewing daily, either by hand or with the machine, and in all over ninety are regularly employed at some kind of work required in or about the house.

The average cost of support for the inmates of this branch has always been moderate in amount, and for the past year rather less than heretofore, owing to fewer repairs and improvements, less new furniture and the diminished prevailing cost of all kinds of supplies and provisions.

The appropriations made in previous years for its maintenance have been generally sufficient in amount, and for the coming year although the daily average number of inmates may be slightly increased, it is believed that not more than \$20,000, the sum appropriated last year, will be required to cover all expenses likely to occur.

At the opening of this building in 1878, Mr. and Mrs. C. C. Warner were placed in its immediate charge, a position they continue to hold with entire satisfaction to this board and with credit to themselves.

N. F. GRAVES,

R. FRISSELLE,

JAMES C. CARSON,

Special Committee in charge of the Custodial Branch.

APPENDIX.

Extract from the minutes of the annual meeting of the board, October 8, 1884.

On motion of Mr. Wilkinson the following preamble and resolutions were unanimously adopted:

WHEREAS, Since our last meeting the Hon. Allen Munroe, for thirty years a member of this board, for twenty-eight years its secretary, and for twenty-two years the treasurer of the asylum, has been suddenly removed to a higher and better state of being; therefore, be it

Resolved, That we fully recognize the zeal and constant interest which Mr. Munroe always manifested in the welfare of the asylum, so far as we know, never having missed a meeting of this board;

Resolved, That in his urbanity, courtesy and philanthropy he was a christian gentleman;

Resolved, That we shall cherish his memory as that of one who had a high regard for his duties as a citizen in promoting the cause of public education, and as a philanthropist in ameliorating the condition of suffering humanity;

Resolved, That we sincerely sympathize with the widow and family of our deceased associate and friend in the bereavement which they have sustained under this dispensation of Divine Providence;

Resolved, That this board and the resident officers of the asylum attend his funeral;

Resolved, That our secretary be instructed to enter these resolutions upon the records of this board and to send a copy of them to the family of Mr. Munroe.

STATE OF NEW YORK.

No. 20.

IN ASSEMBLY,

JANUARY 15, 1885.

FORTY-FIRST ANNUAL REPORT
OF THE EXECUTIVE COMMITTEE OF THE STATE
NORMAL SCHOOL.

To the Legislature of the State of New York:

I have the honor, herewith, to transmit the Forty-first Annual Report of the Executive Committee of the State Normal School at Albany, which is by law placed under the joint care of the Superintendent of Public Instruction and the Regents of the University.

H. R. PIERSON,
Chancellor.

OFFICE OF THE REGENTS, }
January 8, 1885. }

[Assem. Doc. No. 20.] 1

FORTY-FIRST ANNUAL REPORT OF THE EXECUTIVE COMMITTEE OF THE STATE NORMAL SCHOOL AT ALBANY TO THE SUPERINTENDENT OF PUBLIC INSTRUCTION AND THE REGENTS OF THE UNIVERSITY FOR THE YEAR ENDING AUGUST 20, 1884.

To the Superintendent of Public Instruction and the Regents of the University :

The executive committee of the State Normal School at Albany submit their forty-first annual report in respect to the several matters pertaining to the school.

By chapter 49 of the Laws of 1884 the school year of the public schools throughout the State is made to terminate with the twentieth day of August. As this date is much more convenient for closing the accounts of expenditures of the normal school and the statistics of attendance the executive committee have adopted it as the end of the school year. Under the old order the accounts and statistics covered parts of two school years, and thus the numbers given as the aggregate of attendance in this as well as other normal schools were liable to mislead. For the future the school year of this normal school begins with the twenty-first day of August of each year and ends with the twentieth day of August of the next calendar year.

I. THE EXECUTIVE COMMITTEE.

No changes have been made in the constitution of the Executive Committee during the past year. The committee, as now organized, consists of William B. Ruggles, Superintendent of Public Instruction, chairman *ex-officio*, David Murray, St. Clair McKelway, Andrew S. Draper, and Robert L. Fryer ; David Murray, secretary and treasurer.

II. THE FACULTY.

The only change in the faculty since the date of last report has been the appointment of Miss Effie M. Fraats as superintendent of the Kindergarten. Miss Fraats spent last year in Germany at the Froebel's school in Hamburg, with the purpose of preparing herself for taking charge of a kindergarten in the Normal School. As this department cannot be organized until the new Normal School building is completed, Miss Fraats has been assigned to temporary duty in the department of English composition. The faculty is constituted as follows :

Edward P. Waterbury, Am. Ph. D., President, and Professor of Mental and Moral Philosophy and Didactics,	
residence and.....	\$2, 500
Albert N. Husted, A. M., Professor of Mathematics.....	1, 800

William V. Jones, A. M., Adjunct Professor of Mathematics.....	\$1, 800
Sumner H. Babcock, Professor of the Natural Sciences..	1, 800
John B. Marsh, Professor of Vocal Music.....	600
Miss Kate Stoneman, Teacher of Geography, Drawing and Penmanship.....	900
Miss Mary A. McClelland, Teacher of English Grammar and History.....	900
Miss Josephine E. Seaman, Teacher of English Literature and Rhetoric.....	900
Miss Anna A. Farrand, Teacher of Arithmetic and Algebra.....	900
Miss Ellen Bishop, Teacher of Elocution.....	800
Mrs. Meriba A. B. Kelly, Superintendent of the Model School.....	1, 200
Mrs. Jennie L. Young, Assistant in the Model School....	700
Miss Effie M. Fraats, Superintendent of the Kindergarten.	700

III. THE STUDENTS.

The following statement exhibits the attendance during the year ending August 20, 1884, arranged by terms and classes:

Term ending January, 1884.

	Male.	Female.	Total.
Seniors, second term.....	7	22	29
Seniors, first term.....	17	43	60
Juniors, second term.....	14	58	72
Juniors, first term.....	24	124	148
Total.....	62	247	309

Term ending June, 1884.

	Male.	Female.	Total.
Seniors, second term.....	20	38	56
Seniors, first term.....	7	37	44
Juniors, second term.....	19	93	112
Juniors, first term.....	20	58	78
Total.....	66	226	292

Whole number of individual students during the school year,	408
Average number by terms.....	265

Average age of students.

Males.....	21 1-3
Females.....	20 1-2

Attendance in the Model School.

Number of scholars during the term ending January, 1884..	154
Number of scholars during the term ending June, 1884....	131
Number of individual scholars during the school year.....	171
Average attendance	136

Graduates during the school year.

	Male.	Female.	Total.
Number graduating January, 1884.....	7	21	28
Number graduating June, 1884.....	19	36	55
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Total for the school year	26	57	83
Total from the origin of the school....	1,017	1,738	2,755
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IV. GRADUATES.

Two classes are graduated from the school each year, viz.: at the close of the first term in January and at the close of the second term in June. Eighty-three were graduated during the last year, of whom 28 were graduated in January and 55 in June. The following lists give the names of the graduates, their addresses and the subjects of their graduating essays :

Class graduated January 25, 1884.

Twenty-eight members : Seven males, twenty-one females.

Name.	Post-office.	Subject of Essay.
Alice Brower,	Clove Junction,	Pearls.
Luella J. Clark,	Willsboro Point,	What's to Hinder ?
Caroline C. Conover,	Valley Falls,	The Power of Music.
Mary L. Cowles,	Osceola,	Lamp-light.
Ida A. Dutton,	Hare Creek,	Our Nation's Wealth.
Lizzie Garnsey,	Jonesville.	The True Beverage.
Jennie J. Hollister,	New Lisbon,	Imagination.
Julia King,	Salem,	The Way is by Force.
Harriet M. Mahaffy,	Salem,	Satisfied.
Elizabeth Mussey,	Newkirk Mills,	Morning Sounds.
Mary J. Oakes,	Copenhagen,	Contrasts.
Cora A. Patterson,	Ticonderoga,	Two Minutes Too Late.
Arthetta Reed,	Vischer's Ferry,	Hindoo Mythology.
Mary E. Reed,	New Salem,	Two Classes of Teachers.
Mary Roscoe,	Elizabethtown,	Students' Dreams.
Jessie W. Schermerhorn,	East Greenbush,	Oppression, the Nursery of Reform.
Libbie Stackpole,	Albany,	The Mound-Builders.
Henrietta Sutherland,	Wappinger's Falls,	Mental Growth, the Hope of the Race.
Alice H. Sweet,	Dean's Corners,	Change.
Julia R. Waldron,	Peekskill,	Stepping Stones.
Evelena Williams,	Westbury Station,	My First School.
La Mott Day,	Burlington Flats,	Harmony.
James M. Edsall, Jr.,	Prattsville,	Unrealized Ideals.
William G. Reed,	Alton,	Africa.
Myron Reichtmyer,	W. Richmondville,	Our Net Proceeds.
Herbert W. Smith,	Islip,	Bricks.
Oren B. Wilbur,	North Easton,	Home.

Class Graduated June 26, 1884.

Fifty-five members: Nineteen males, thirty-six females.

Name.	Post-office.	Subject of Essay.
S. Grace Anderson,	Clayville,	Sunset.
Ida M. Babcock,	Laurens,	Tides.
Minnie Babcock,	Haverstraw,	The Goblet of Life.
Abbie C. Benson	Albany,	Clouds.
Mary E. Berns,	Albany,	Mind Culture for Women.
Ida Brimmer,	Painted Post,	Ruins.
Carrie A. Carroll,	Copenhagen,	Popular Falacies.
Alice W. Coakley,	Hempstead,	Right gives Might.
Emma M. Coe,	Gilbertsville,	Darwin, not Darwinism.
Irene Embler,	Walden,	The Cedars of Lebanon.
Eleanor D. Gillespie,	Dobb's Ferry,	Unwritten Music.
E. Helen Hannahs,	Rome,	Words.
Emma Hard,	Sharon Springs,	The Drama of Life.
Mary Hardy,	East Watertown,	Reading.
Lillie D. Hedden,	Charlton,	American Humorists.
Ella A. Holmes,	Marion,	The Maid of Orleans.
Nellie Horsfall,	Freeport,	Harmony.
Marion H. Inrie,	Albany,	Egypt.
Ida M. Isdell,	Philadelphia,	Christianity and Civilization.
Cornelia M. Jenkins,	Kings Ferry,	Our debt to the Chinese.
Jenna L. Kathan,	Ballston,	Motives to Labor.
Jennie Matthias,	Jerusalem,	Riches.
Margaret McIntyre,	Waterloo,	Beauty.
Abbie Miller,	Coxsackie,	Health and Money.
Katharine Murphy,	Copenhagen,	Mirrors.
Mary Bell Ostrom,	West Charlton,	Courage.
Charlotte R. Parmele	Greenbush,	The West.
Anna M. Patterson,	Dobb's Ferry,	The Love of Fame.
Nettie E. Patterson,	Braman's Corners,	Benefits of Discontent.
Anna E. Pierce,	Union Centre,	A Country School.
Fanny M. Pratt,	Easton,	Life.
Eugenia B. Purdy,	Port Chester,	The Reward of Effort.
H. Agnes Smith,	Islip,	Unused Powers.
Mary Smith,	Cropseyville,	The Pilgrim Fathers.
Elizabeth Stever,	Bath-on-Hudson,	Satisfaction.
Mary Louisa Sutliff,	Bath-on-Hudson,	Natural Science in Common Schools.
Ada Vrooman,	Becker's Corners,	The Beautiful in Nature.
Lynn J. Arnold,	Burlington Flats,	Public Sentiment.
Alvin Converse,	Coventry,	Our Work.
Jacob W. Druman,	Stuyvesant Falls,	The Power of Habit.
Michael William Gilmore,	Clinton Corners,	What Commands Success?
Charles H. Gorsline,	North Hillsdale,	Self-made Men of America.
Joseph D. Greenslete,	Broadalbin,	Alcohol.
Elmer C. Henderson,	Walton,	Sand.
William H. Hulbert,	Broome Centre,	Perseverance its own Reward.
James W. Jacobus,	White Plains,	The Coming Teacher.
John James,	Union Grove,	Will it Pay?
Theophilus Johnson,	Hillsdale,	The Secret of Happiness.
Martin Joyce,	Hillsdale,	Novelties.
Daniel D. Lillie,	Gilbertsville,	The Imagination.
Michael Nolan,	Gray,	Adventures of Princeps.
Irvin Peck,	Middleburgh,	Young Men of the Present.
Elmer H. Porter,	Hartwick,	Friendship.
George K. Smith,	West Richmondville,	Schools Past and Present.
Theodore Witte,	Holbrook,	Characteristics of Our Nation.
Walter A. Wood,	Voorheesville,	Language.

V. QUALIFICATIONS FOR ADMISSION.

For admission to the State Normal School at Albany the following qualifications are required :

1. Candidates for admission to the lowest class must, if ladies, be not less than sixteen years of age ; and if gentlemen, not less than eighteen ; and if applying for admission to an advanced class, must be of a proportionately greater age. In all cases, *decided maturity of mind* is indispensable. None will be admitted after the commencement of a term except for weighty reasons.

2. In arithmetic the applicant must be able to recite all of the ordinary tables of denominate numbers ; to both write and read with facility large numbers, both entire and decimal ; readily to perform the operations of addition, subtraction, multiplication, division and reduction of numbers, both simple and denominate, entire and fractional ; to solve examples in percentage with its applications to interest, discount, and profit and loss ; to solve problems in ratio and proportion, and in square and cube root. Problems will be given sufficiently difficult to test the capacity for logical reasoning.

3. In geography, questions will be given relating to the shape of North America, its mountains, its river systems ; the shape, the area, the boundaries and the number of the United States and territories, and the relative importance of the different States. Correct information will be required as to the Great Lakes ; the mines and mineral productions of the United States ; the production and exportation of wheat, cotton and petroleum ; and as to the great railroad lines between the Atlantic and Pacific States. The applicant must be acquainted with the size, location and commercial characteristics of the more important cities of the United States and of Europe.

4. In grammar, the applicant must analyze, according to the system taught in any standard grammar, simple sentences, compound sentences, and complex sentences containing two or more clauses ; explain the formation of the plural of nouns ; decline personal and relative pronouns, and show how the different case forms are used in sentences ; explain and illustrate the office of adjectives and of adverbs ; write verbs in any required mood and tense ; and show a reasonable acquaintance with the use of capital and of italic letters, and with the subject of punctuation.

5. In spelling, the applicant must exhibit a familiarity with the general rules of spelling, and be able to spell correctly seventy out of one hundred words in common every-day use.

6. In reading, the applicant must be able to read in a clear and distinct manner, pronounce words correctly, and show a knowledge of emphasis, inflection, etc.

7. Miscellaneous.

Those applying for admission to the advanced classes will be required to pass an examination in the studies of the preceding classes, and particularly in the methods of teaching the subjects which have been studied by those classes.

Applicants who can present a Regents' preliminary certificate will be admitted without examination. Those who have a Regents' intermediate certificate will be admitted to the senior first class without examination.

VI. COURSE OF STUDY.

The course of study pursued in the school extends through two years, and embraces the following subjects :

Junior Class — First Term. Arithmetic, English Grammar, Geography, Map Drawing, Penmanship, Physiology, Algebra, Didactics.

Junior Class — Second Term. Algebra continued, Higher Arithmetic, Elocution, Rhetoric, English Grammar, Botany, Natural Philosophy, History of the United States, Didactics.

Senior Class — First Term. Geometry, Natural Philosophy continued, Ethics, Astronomy, History, Science of Government, Higher Algebra, Criticism, Free-Hand and Industrial Drawing, Didactics.

Senior Class — Second Term. English Literature, Mental Philosophy, Trigonometry and Surveying, Chemistry, Geology, Book-keeping, Political Economy, Evidences of Christianity, Natural History, Comparative Anatomy, Practical use of the Microscope, Didactics, Teaching in Model School.

Composition, Elocution and Vocal Music receive prominent attention throughout the course; it is expected that every student who shall have attended one term will be qualified to teach simple vocal music to children.

The year is divided into two terms of twenty weeks each. The time required to complete the course will depend on the attainments, habits and talents of the pupil. It ought never to exceed four terms, or two years. The students are divided into four classes; these are subdivided into as many sections as circumstances may require.

Students are drilled in all the branches which they will be called to teach, and in such other studies as experience has shown to be best adapted to discipline and develop the mind. Persons cannot be made teachers by merely being told how to teach. They must themselves be taught in the right manner. They must themselves form the mental habits which it is their duty to aid others in forming. They must teach.

Every member of the faculty of the normal school is expected to be by example and by precept, in every recitation a teacher of didactics; every student is expected to recite as he should require a pupil to recite. Instruction in the art of teaching is thus given at every recitation in every department. Special attention is given to the study of the human mind as the object and instrument of education.

Besides receiving in this way instruction in the art of teaching, the students are, at the proper stage of their progress, required to

teach in the model school one or more hours a day for twenty weeks, under the supervision of the superintendent. While teaching, they are required, day by day, to submit a scheme of the next day's lesson and the method they propose to adopt in presenting it to the pupils. This scheme is criticised by the superintendent and modified as may be advisable. The best thought and ingenuity of the normal students are called out and exercised in the actual work of teaching; and faulty methods are eliminated. They also, under direction, are expected to visit the parents of every pupil whom they teach, and to visit other Albany schools, and submit written reports of what they see and learn. Leaving the normal school, the student will enter upon professional duties with a confidence born of experience and practice. The superintendent frequently meets those practicing in the Model School and encourages them to present original plans and schemes, which are criticised by their fellows, by the superintendent and by the president. From 8½ to 9 A. M., the graduating class give individual assistance to the pupils of the Model School, and thus learn to inspire and interest them.

Particular attention is paid to the studies of the first term junior, as these are the ones usually taught in district schools. Many attend during that term, and then leave and teach for a time, and thus procure the means for returning and completing the course.

VII. THE NEW SCHOOL BUILDING.

The executive committee applied to the Legislature in 1883 for a small appropriation to make repairs upon the school building in Lodge street. The finance committee of the Senate, having this application under consideration, deemed it wise to make an examination of the building, which two of their number personally inspected. They became convinced that it was entirely unfit for the purposes of the school. At their suggestion, a survey was made by experts, who confirmed them in their opinion that eventually, and not at a distant day, the building would become dangerous. They believed it a needless waste of money to make repairs on the old building; and in consequence they reported the following bill which promptly became a law:

SECTION 1. The sum of one hundred and twenty-five thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any money in the treasury not otherwise appropriated, for the erection of a new State Normal School building in the city of Albany, and for the purchase of a site for the same, which sum shall be paid by the treasurer, upon the warrants of the Comptroller to the order of the executive committee of said Normal School, who are hereby charged with the duty of such construction. The said executive committee are hereby authorized to negotiate for a suitable site for such building and upon the approval of the Comptroller to purchase the same, and to proceed with the erection of such building. Such committee are also hereby authorized to sell the real estate

now occupied by said school in such manner, and for such sum, and upon such terms, as shall be approved by the Board of Commissioners of the Land Office, and to use the proceeds of such sale in the erection of the new building, and upon such sale aforesaid quit-claim letters patent shall issue in the usual form to the purchaser. But no part of this appropriation shall be paid or expended, and no real estate shall be sold or purchased or agreed to be sold or purchased, pursuant to the provisions of this act, until said executive committee shall make and file with the Comptroller a certificate specifying the site proposed to be purchased, and the price thereof, and a copy of the plans for the proposed building, with a statement of the kind of material it is proposed to use in erecting the same, together with the estimates of such experts as shall be required by the Comptroller, showing to the satisfaction of the Comptroller that such site can be purchased and such building erected and completed for the sum herein appropriated and the sum which may be realized from the sale of the present school property.

§ 2. This act shall take effect immediately.

In pursuance of the provisions of the law, the committee purchased the site on Willett street, and employed Messrs. Ogden & Wright, architects of Albany, N. Y. The plans were prepared by Mr. Frank P. Wright, of the above firm, and with the proposals of the contractors were submitted to and approved by the Comptroller; having first, at the request of Governor Cleveland, been examined and approved by Hon. Isaac G. Perry, Commissioner of the New Capitol. The material of the Old Capitol was purchased and reappears in the new Normal School building, thus remaining in the service of the State.

The building will be completed in the spring of 1885, and will be ready for occupancy at the opening of the school year in September. The following description will give an accurate conception of its plan and construction:

The edifice has a frontage on Willett street of 128 feet and a depth of 160 feet. The court in the center is 50 by 90 feet. The building is designed to accommodate 400 normal students, 200 pupils in the model department, fifty children in the kindergarten, and twenty pupils in the object class. The north and south flanks are three stories high, with the center part of the park front two stories high. This central park stands back six feet from the fronts of the two flanks. The flanks are 104 feet in depth, and running transversely with them across the easterly end is a four story building, with a proportionately high roof. The interior court affords the most desirable advantages of light and air. The style is modern renaissance, with frieze band and sill courses of terra cotta, and moulded brick liberally treated. The ground story is elevated from the grade about four feet. This is faced up with Nyack stone, taken out of the Old Capitol, and laid in rock-faced random ashlar. The exterior walls above this, as well as the court yard, are faced with

Glens Falls pressed brick, with high window and door dressings of brown stone. The lower ashlar is of Upper Aqueduct blue stone.

The arrangement of the plan is simple. Corridors extend around the central court with entrances in the front and both flanks, leading to the several departments, section and recitation rooms; the staircases to the upper stories are outside the line of the main building within the court, and made very easy with spacious landings. Under the east part of the building are the heating apparatus and fuel cellars. The ground floor contains the kindergarten, to accommodate 50 children, an object class of 20 pupils, a large recreation room, and twenty recitation rooms for the model department, the clothes rooms for the entire building, lavatories, janitor's apartment, large entrance hall, etc.

The principal floor embraces a large library, reception room, model assembly room to accommodate 200 pupils with single seats and desks, office for the superintendent of the model department, ten recitation rooms for the model school, and eight section rooms for the normal department. Each section room is intended to accommodate 50 normal students, and the recitation rooms of the model school from 15 to 25 pupils. The second story contains the large assembly hall, with a seating capacity of 800; philosophical department, to accommodate 100 students, with table accommodations for manipulating the apparatus, that they may be prepared to instruct pupils in the same manner; also a room seating 200 for instruction in Drawing and Geography, and four section rooms, each accommodating 40 pupils. The roof over the lower or central portion between the two flanks on the park front has a handsome parapet, and is concreted. It is constructed to allow of its use as a botanical garden, which will produce a beautiful and pleasing effect. The main entrance is in the center of the depressed portion, and over the door is a tablet, containing the coat of arms of the State. The chemical laboratory is located on the fourth floor of the southeast corner, and is to be fitted up with complete apparatus for 100 students to perform experiments, and learn by actual doing the work of a chemist.

The heating and ventilating of the building are to be accomplished on the system of direct and indirect radiation on a novel principle. It is calculated that the quantity of fresh heated air admitted to each room is sufficient to supply each pupil with eight cubic feet per minute. The same when vitiated will be withdrawn on the opposite side of the room at the floor by ventilating ducts, which in turn discharge into a large central ventilating shaft that is made effective by the use of the smoke-pipe from the heating apparatus. As an additional means of ventilation, use is made of all windows between the corridors and school-rooms, and also the headlights of doors. All the rooms and corridors throughout the building are to be wainscoted; and all rooms will have slate blackboards on all sides; the windows are placed at such a height as to allow blackboards under them.

The floors throughout the building will be of narrow Georgia yellow pine. The interior finish of the structure is to be of oak, the walls sand-faced and furnished with picture rails and wood cornices. The rooms are to have the most modern type of school furniture. The great assembly room is to be lighted by six large mullion windows, the one on the north end ($14\frac{1}{4}$ by $32\frac{1}{2}$ feet) being known as the Alumni Memorial Window. Much interest has been manifested in this by the graduates of the school, and it was unanimously resolved at the re-union, held December, 1883, six hundred alumni being present, to contribute for the purpose of making it a magnificent stained-glass memorial of their connection with the institution. It is estimated to cost upwards of \$5,000.

Careful attention has been paid to the drainage, all soil and waste-pipes being ventilated so as to discharge all effluvia into the main shaft. The roofs are of Bangor slate, with terra cotta ridge rolls, cresting and terminals. All the water from the roofs is carried down on the inside of the building, from the gutters back of the parapet walls. The sides of the dormers are covered with red tile. The building will be practically fire-proof, each floor being filled in with mineral wool. All partitions are to be of brick or hollow tile, all beams of iron, no wood partitions being used. The interior court will be flagged with blue stone. The view of the building as seen from the park will have a grouped effect. The architect has thrown the lower parts of the building to the front, so that over the low central portion of the park front the entire building declares itself, every part showing the purpose for which it is intended. The alumni window and the quiet spaces on either side contrast with the broken facade of the other portions of the north front so as to indicate the large assembly hall to which it belongs.

It is believed that the general effect of the whole structure will be dignified and worthy of the grand purposes to which it is to be devoted.

VIII. FINANCIAL STATEMENT.

The executive committee submit the following statement of the receipts and expenditures on behalf of the school, for the year ending August 20, 1884:

Receipts.

Balance on hand October 1, 1883.....	\$966 74
From State Treasurer, general appropriation.....	17, 894 83
From State Treasurer, special appropriation	231 31
From tuition in the model school.....	1, 555 50
From contingent sources.....	148 90
Total	<u>\$20, 797 28</u>

Expenditures.

For salaries in normal department.....	\$12,750 00
For salaries in model school.....	1,900 00
For salary of janitor (eleven months).....	504 17
For fuel, light and water.....	1,012 25
For repairs of buildings.....	81 16
For apparatus and chemicals.....	221 33
For books and stationery.....	370 81
For mileage of students.....	867 85
For contingent expenses.....	1,988 95
Balance on hand August 20, 1884.....	1,100 76
Total.....	<u><u>\$20,797 28</u></u>

The following statement shows the receipts and expenditures on account of the new building up to August 20, 1884:

Receipts.

From State Treasurer, building appropriation.....	\$70,254 80
From the sale of old buildings.....	645 00
From contingent sources.....	100 00
Total.....	<u><u>\$70,999 80</u></u>

Expenditures.

For site and right of sewerage.....	\$30,600 00
For expenses of search, survey, etc.....	325 00
For printing, advertising, etc.....	83 56
For material of old capitol.....	5,876 93
For mason work, on account of contract.....	25,700 00
For carpenter work, on account of contract.....	4,000 00
For iron work, on account of contract.....	426 25
For compensation of architects.....	3,379 31
Balance cash on hand, August 20, 1884.....	608 75
Total.....	<u><u>\$70,999 80</u></u>

Respectfully submitted,

WILLIAM B. RUGGLES,
DAVID MURRAY,
ST. CLAIR McKELWAY,
ANDREW S. DRAPER,
ROBERT L. FRYER,

Executive Committee.

ALBANY, December 31, 1884.

STATE OF NEW YORK.

No. 21.

IN ASSEMBLY,

JANUARY 15, 1885

FOURTEENTH ANNUAL REPORT
OF THE MANAGERS OF THE BUFFALO STATE ASYLUM FOR THE INSANE.

To Hon. GEORGE Z. ERWIN, *Speaker of Assembly* :

SIR — The Managers of the Buffalo State Asylum for the Insane present to the Legislature their report for the year ending September 30, 1884.

Very respectfully,

FRANCIS H. ROOT,
JOHN M. HUTCHINSON,
GEORGE R. POTTER,
JOHN D. HILL,
DANIEL H. McMILLAN,
HENRY HELLREIGEL,
JOHN BOARDMAN,
CHARLES G. CURTIS,
WILLIAM M. IRISH,
FRANKLIN BURRITT.

BUFFALO, *January* 14, 1885.

OFFICERS.

MANAGERS.

FRANCIS H. ROOT.....	Buffalo.
JOHN M. HUTCHINSON.....	Buffalo.
GEORGE R. POTTER.....	Buffalo.
JOHN D. HILL.....	Buffalo.
DANIEL H. McMILLAN.....	Buffalo.
HENRY HELLREIGEL	Buffalo.
JOHN BOARDMAN.....	Buffalo.
CHARLES G. CURTIS.....	Buffalo.
WILLIAM F. IRISH.....	Olean.
FRANKLIN BURRITT.....	Fredonia.

TREASURER.

ELIAS S. HAWLEY.....	Buffalo.
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RESIDENT OFFICERS.

JUDSON B. ANDREWS, M. D.....	<i>Superintendent.</i>
WILLIAM D. GRANGER, M. D.....	<i>First Assistant Physician.</i>
FLOYD S. CREGO, M. D.....	<i>Second Assistant Physician.</i>
LEVI M. BEAM.....	<i>Steward.</i>
MARY E. NEWCOMB.....	<i>Matron.</i>

CHAPLAIN.

REV. A. T. CHESTER, D. D.....	Buffalo.
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REPORT.

The Board of Managers of the Buffalo State Asylum for the Insane herewith respectfully present to the Legislature their fourteenth annual report, also that of the treasurer and superintendent.

The treasurer makes the following exhibit of the financial transactions and conditions of the asylum for the fiscal year ending September 30, 1884.

There was a balance in the hands of the treasurer in the beginning of the year October 1, 1883, of \$6,319.43.

There was received by the treasurer during the year ending September 30, 1884, from all sources, \$89,318.08, making a total of \$95,637.51.

The expenditures for all purposes for the year were \$84,385.93. This leaves a balance to the credit of the asylum in the hands of the treasurer September 30, 1884, of \$11,251.58.

The report of the superintendent makes a more favorable showing in the percentage of recoveries than during any preceding year.

There were in the asylum at the beginning of the year, 329 patients; admitted during the year, 275, making a total under treatment of 604. Of these, 257 were discharged, leaving under treatment September 30, 1884, 347 patients.

Of the number discharged, 80 had recovered; 13 were much improved; 25 were improved; 88 were unimproved; 8 were not insane, and 43 died.

The daily average of patients was $340\frac{1}{3}$.

The greatest number present on any day during the year was 352, and the smallest, 328.

The ratio of recoveries to number admitted was thirty per cent; to the average population, twenty-four per cent; and to the number discharged, exclusive of deaths, thirty-seven and four-tenths per cent.

The number of admissions is larger than during any previous year, and the results of treatment especially gratifying. This, how-

ever, might have been expected ; as the organization becomes more complete, facilities for care and treatment are increased.

The asylum has accommodations for 340 patients, distributed as follows: On the men's wards, 159, and on the women's wards, 181. The distribution of the sexes is not in accordance with the accommodations for each, the men's department having 176 patients, an excess of 17 to be accommodated on cots, while on the women's wards, there are 171 patients, leaving room for 10 more. For some reason there have been fewer admissions of women; 118 women to 157 men. The number discharged is larger than ever before, 257, while the number who have enjoyed the advantages of treatment, 604, shows not only the pressure upon the asylum, but the amount of labor imposed upon the officers in the reception and care of so many insane.

There are few, if any, asylums in the country with such a rapid change of population. This is rendered possible only by the return of chronic cases to the county asylums. These are now filling rapidly, and in some counties extra buildings and accommodations are being provided and in others strongly urged. Thus far the asylum has been able to receive all for whom application has been made, but this cannot long continue without providing further accommodations. All admissions and discharges have been made according to the provisions of law.

In their last report the managers called the attention of the Legislature to the condition of the basements of the asylum and the necessity for the drainage of the buildings and requested that the State Engineer be authorized to prepare plans and estimates for doing the work, and that the carrying out of the same be intrusted to his hands.

The following bill, providing for an appropriation, was passed during the last session, entitled chapter 488, Laws of 1884:

SECTION 1. The sum of \$23,500 is hereby appropriated out of any unexpended balances in the treasury of the State, or so much thereof as may be necessary to construct, complete, and connect drains around the outside of "The Buffalo State Asylum for the Insane," of sufficient depth and capacity to thoroughly drain the basement of said asylum and to relay the concrete flooring in the basement of said asylum, or so much thereof as the State Engineer shall deem it essential to relay, and for replacing the tile flooring of the kitchen of said asylum with flagging, and for the construction of tram-ways from the kitchen to and through the basement of said asylum to the various dining-room elevators therein, to be used in running the vans required in carrying and distributing the food used in said asylum; which amount shall be paid by the Treasurer, upon the warrant of the Comptroller, to the order of the State Engineer, as he shall require the same.

§ 2. Such drains and tram-ways shall be constructed, and such floors repaired or replaced, under the supervision of the State Engineer, upon plans, drawings and specifications thereof, to be prepared by such Engineer.

§ 3. The furnishing of all materials and the doing of the work in the construction of said drains and tram-ways, and the repairing and replacing of said floors shall be by contract or contracts; and the contract or contracts thereof shall be awarded to the lowest *bona fide* responsible bidder or bidders, after the notice of the letting thereof shall have been advertised by the State Engineer in two of the daily papers published in the city of Buffalo, once in each week for four weeks consecutively, immediately preceding the letting of said contract; the notice of letting to be signed by the State Engineer, and to state the work to be let, the quality, quantity, and kind of materials to be bid for, and the length of time that will be given for the completion of the work, the amount of security required, and the bonds to be furnished for the faithful performance of the contract. The proposals received shall be exhibited to the Governor and Comptroller of the State, together with the proposed contract, which, on their concurrent written approval indorsed thereon, shall be entered into, on the part of the State, by the State Engineer. The said contract shall reserve the right to the State Engineer, with the concurrence of the Governor and Comptroller of the State, to declare the same forfeited whenever, in the judgment of such Engineer, said contract is not being performed for the interests of the State.

§ 4. This act shall take effect immediately.

The contracts were let in accordance with the provisions of the bill, and work was begun about the middle of September.

The outside drainage is at this date substantially completed, and the relaying of the concrete in the basements is already considerably advanced. The absence of the usual fall rains has been favorable for the work of drainage, and as a consequence the basements are now in better condition than they have been since the opening of the asylum.

We deem it a matter of congratulation that the necessary improvement has been made at this time, and that the unhygienic condition of the asylum will be corrected before the approaching summer, with the possibilities of the spread of epidemic disease through the country. Experience shows the dangers attendant upon residence over damp and unhealthy basements, and that these are largely increased in case of a debilitated or enfeebled population like the insane.

The board would report that the sums appropriated last year for special purposes, viz.: \$1,000 for painting and papering the walls of the administration buildings, \$1,000 for furnishing the third floor of same, and \$1,000 for storm windows, have been used for the purposes named, and the work satisfactorily completed for those amounts.

The sum of \$6,500 was asked to erect a fence in front of the asylum grounds on Forest avenue. From the estimates obtained it was thought that this would be sufficient to erect about 1,000 feet of iron fence in the immediate front and a picket fence of wood the remaining 2,000 feet. The cost of iron was so much reduced during the summer that the board was able to con-

tract for the erection of an iron fence the whole distance at an expense, with the grading, of \$5,524.02; this leaves \$975.98 of the sum appropriated to revert into the treasury of the State.

The fence has two rails, is five feet six inches high, of three-quarter inch iron picket set diagonal to the rail. There are two large and one small gate-posts at each entrance, built of Medina sandstone like the buildings. They are appropriate for the purpose, and the general effect is good.

The appropriation made two years ago for putting up gutters and conductor pipes has been expended. The work has been satisfactorily done and the buildings are now protected from further injury. This work was delayed until the drains were laid which could receive and conduct off the water falling from the roofs.

Among the improvements of the year the board report the erection of a fire-proof vault for the safe-keeping of the papers and records of the asylum, for which no arrangement was made in the original construction. This was completed at an expense of \$700.

The defects of the heating apparatus and the inefficiency of the means employed for ventilating the asylum building has, for some time, forced itself upon the attention of the board. The heating of the buildings demanded a large outlay for fuel and was attended with much loss from imperfections in the piping, and the faulty distribution of steam. The force of the fan was insufficient to be felt beyond the first two ward buildings, A and B, thus leaving the three remaining, practically without any proper ventilation. In view of these facts the board deemed it of importance that such changes should be made as would satisfactorily heat and ventilate the asylum with true economy in the use of fuel and power. Mr. J. H. Mills, a competent steam-heating engineer, was employed to look over the whole subject and report his conclusions to the board. His recommendations were adopted, and the work of carrying them out was intrusted to his hands. These contemplated a change to a low pressure apparatus with a direct return of water of condensation to the boilers. This promises to be a more uniform and efficient method of heating.

The ventilation of the wards is to be effected by separate fans located in the attic of each building, which act by exhausting the air from the flues instead of forcing it from the basement. Power is supplied by belts from water motors placed in the cold-air passages. Air is taken from the basement windows of the rear extensions and heated by being passed over large stacks of radiators placed at points of entrance: all the air is thus warmed on coming into the building and farther heated by the radiator stacks placed under the flues which conduct the air to the wards. As the work is not yet completed we are not able to give results of the changes effected.

The necessary repairs have been made to the buildings, and the farm shows the results of the care and labor that has been bestowed upon it in the improved appearance and somewhat in actual products. It will, however, be a labor of time to bring

the farm into a highly productive state. During the last year no appropriation was asked for maintenance. The institution has, however, been self-supporting, and there will be, we trust, no occasion to ask any appropriation from the Legislature, except for the erection of new structures or of extraordinary expenditures.

The managers would respectfully urge the necessity of additional farm buildings. Those at present erected are entirely insufficient for storing the hay and grain grown upon the farm. A large portion of the hay and straw has been placed in stacks, which has resulted in deterioration and actual loss. With sufficient storage room and stable room for cattle this could all be utilized and made a source of revenue to the asylum. By feeding the entire product of the farm, stock could be wintered and fattened, and the manure made would materially assist in enriching the land, thus increasing its productive qualities. The managers recommend the erection of a barn 125 by 50 feet, to be built of wood.

So far no permanent arrangement has been made to properly house and care for the pigs which are kept upon the premises. During the season ninety have been fed upon the refuse material. A rough-board piggery, which is fast going to decay, has been used for their keeping. A permanent structure should be erected, with proper foundations and flooring, with conveniences for cooking feed and for butchering. A building for keeping fowls, additional shed-room for storing farm implements, wagons and sleighs, for protection against the weather, a shed for the accommodation of those who visit the asylum, and a fence around the barnyard are deemed essential for the economical conduct of the farm and the proper care of the property of the asylum. The amount requested to be appropriated is \$12,210.83. The plans and estimates upon which this request is based will be presented in detail to the committee of the Legislature having the matter in charge.

The grounds of the asylum have received but little care and no outlay since the opening of the institution. They were never completed as laid out in the original plan and are now in great need of attention. Additional trees should be planted, new roadways laid out and others continued, and the lawn with the grove so arranged as to be used by the patients for walks and exercise, and to furnish a proper outlook for and harmonize with the buildings. The managers, therefore, would ask that the amount remaining from the appropriation for the iron fence in front of the asylum be reappropriated, to be expended upon the grounds.

RECAPITULATION.

The requests for appropriations are for—	
Barns, piggery, hen-house, sheds, etc.....	\$12,210 83
For grounds (reappropriated from fence)	975 98
For sidewalk on Forest ave., 3,022 feet.....	5,208 00
For contingencies.....	250 00
	<hr/>
	\$18,644 81
	<hr/> <hr/>

The officers of the asylum are commended for their earnest efforts to alleviate the condition of those placed under their charge, and to elevate the standard of care and treatment.

The managers have satisfied themselves, by constant supervision and personal knowledge, that the financial affairs of the institution have been conducted with economy and success.

They can heartily recommend the asylum to those who need the special care which a hospital for the insane affords. They feel assured that all the patients receive the kind care and treatment, both medical and moral, which humanity demands and which it is the will of the State to provide.

The board would especially ask the Legislature to take the asylum in all its varied interests under their fostering care. It is yearly doing more and more to carry out the great design of its erection, and is a noble monument to the charitable generosity of the people of the State.

All of which is respectfully submitted.

FRANCIS H. ROOT,
JOHN D. HILL,
H. HELLREIGEL,
JNO. BOARDMAN,
WM. M. IRISH,
J. M. HUTCHINSON,
GEO. R. POTTER,
DANIEL H. McMILLAN,
CHAS. G. CURTIS,
FRANKLIN BURRITT.

BUFFALO, *January* 14, 1885.

TREASURER'S REPORT.

To the Board of Managers of the Buffalo State Asylum for the Insane :

GENTLEMEN — I submit a summary of receipts and expenditures for the year ending September 30, 1884.

RECEIPTS.

On hand from last year.....	\$6,319 43
From Comptroller for salaries.....	\$7,535 95
From Comptroller for special appropriations. 1,510 40	
	<hr/> 9,046 35
From sale of farm products.....	\$588 04
From sale of old machinery.....	113 30
	<hr/> 701 34

Maintenance of Patients.

From Allegany county.....	\$2,742 20
From Cattaraugus county...	3,254 22
From Chautauqua county...	5,580 51
From Chemung county.....	2,339 25
From Erie county.....	31,719 78
From Genesee county.....	422 25
From Herkimer county.....	199 93
From Livingston county....	1,009 91
From Monroe county.....	6,006 44
From Niagara county.....	6,589 51
From Orleans county.....	1,791 80
From Steuben county.....	3,579 31
From Wayne county.....	1,121 09
From Wyoming county.....	1,484 81
	<hr/> \$67,841 01
From private patients.....	11,287 70
From State Board of Charities.....	162 07
From Soldiers and Sailors' Home.....	279 61
	<hr/> 79,570 39
	<hr/> \$95,637 51

PAYMENTS.

For attendants and labor.....	\$18,801 75
For provisions	25,993 12
For repairs.....	2,457 19
For farm, barn and grounds.....	4,805 72
For miscellaneous expenses.....	670 97
For clothing.....	1,802 69
For furniture.....	3,327 46
For patients' expenses	211 38
For household stores	2,268 93
For books and stationery.....	526 30
For fuel and heat.....	5,344 69
For medicines	971 08
For city gas.....	1,586 93
For improvements.....	8,081 77
For salaries.....	7,535 95
For balance to new account.....	11,251 58
	<hr/>
	\$95,637 51
	<hr/> <hr/>

ELIAS S. HAWLEY,

*Treasurer.*BUFFALO, *October 1, 1884.*

SUPERINTENDENT'S REPORT.

Gentlemen of the Board of Managers:

In compliance with the law organizing the Buffalo State Asylum for the Insane, the superintendent would respectfully make the following report of its operations during the year ending September 30, 1884:

GENERAL STATISTICS OF THE ASYLUM.

	Men.	Women.	Total.
Patients in the asylum September 30, 1883. _	159	170	329
Admitted during the year	158	117	275
	<hr/>	<hr/>	<hr/>
Total in the asylum..	317	287	604
	<hr/>	<hr/>	<hr/>
Discharged recovered	42	38	80
" much improved	6	7	13
" improved	15	10	25
" unimproved	49	39	88
" died	24	19	43
" not insane.....	5	3	8
	<hr/>	<hr/>	<hr/>
Total	141	116	257
	<hr/>	<hr/>	<hr/>
Remaining in the asylum September 30...	176	171	347
	<hr/>	<hr/>	<hr/>
Maximum number within the year.....			352
Minimum			328
Daily average.....			340 $\frac{1}{8}$
Ratio of recoveries to number of admissions			29.4
Ratio of recoveries to average population			24
Ratio of recoveries to number discharged			30.7
Ratio of recoveries to number discharged exclusive of deaths			37.4
			<hr/>

On analyzing the admissions we find the following facts which are of interest:

Of the 275 patients received during the year 3 only were from other asylums; the rest, 272 in number, came directly from their homes, from the institutions of their own counties, or from the station-houses or places of temporary detention.

In 244 cases the present was the first attack; in 22 cases it was the second; in 4 cases the third; in 2 cases the fourth, and in 3 cases the number of the attack could not be definitely ascertained.

There were 15 cases of epilepsy; 13 of paresis or general paralysis of the insane; 38 were insane for two or more years, and in 60 cases the duration, though chronic, could not positively be determined. There were, therefore, 126, or forty-six per cent, which presented an unfavorable prospect for recovery.

There were 16 cases which gave a history of syphilis, and in 12 cases it was apparently the direct cause of insanity.

The following is a description of the defects and most marked impairment of health: Three had curvature of the spine, 1 was blind in one eye, 1 was deaf, 1 had lost right arm, 1 was castrated, self-inflicted in a previous attack, 8 were very feeble, 2 had paralysis, 3 chorea, 1 lupus, 1 paraplegia, 1 extensive ulcer of the leg, 3 had heart disease, 2 had cut throat, 1 had carbuncle, 17 were emaciated, and 6 were pregnant.

Of those brought to the asylum in restraint, 7 were handcuffed, 1 was in waist-belt and wristlets, 1 in shackles and sheets, 1 in handcuffs and shackles, and 1 was tied in a wagon with ropes.

Of the 275 admitted, 89 had suicidal or homicidal tendencies; 23 had attempted, 14 had threatened, and 4 had contemplated suicide; 14 had attempted and 14 had threatened and 2 contemplated homicide; 3 had attempted and 15 had threatened both suicide and homicide.

Of those discharged not recovered, 56 were removed to the various county asylums, 18 to the Willard Asylum for Chronic Insane, 7 to the Binghamton Asylum, 9 were removed on bond, 2 were sent to their homes in other States, and 4 eloped. There were 8 discharged as not insane; of these, 6 were cases of inebriety or opium habit, whose health was undermined by their habits, and who lacked the power of control; 2 were cases whose violent acts made them dangerous to others. They were all regularly committed as insane.

There were 43 deaths, 24 among the men and 19 among the women; of these, 5 were from apoplexy, 5 from cerebral hemorrhage, 1 from cerebral congestion, 2 from meningitis, 3 from phthisis, 1 from pneumonia, 3 from heart disease, 1 each from chronic diarrhœa, dysentery, Bright's disease, chorea and diffuse cellulitis, 6 from asthenia, 10 from paresis, 1 from suspension, and 1 from shock from self-inflicted injury.

There has been no epidemic form of disease, and the general health of the household has been good. The character of the cases received has not essentially changed. Of the deaths recorded, 8 were of patients who had been resident of the asylum for less than one month.

We present the usual statistics of labor, voluntarily performed. The divisions of the table are more numerous, and the percentage of labor is somewhat larger, than in any previous year. The men have found employment out of doors in the various methods specified. It has not been difficult to find work for the large number recorded as occupied, nor do we anticipate any trouble in that regard.

TABLE showing number of days women were employed, kind of work done, and average per cent daily, in each month from September 30, 1883, to September 30, 1884.

LABOR.

MONTH.	Ward work.	Dining-room.	Laundry.	Sewing.	Mending.	Knitting.	Embroidery.	School.	In center.	Total days' work.	Total days of patients per month.	Perct. employed
1883.												
October..	736	709	654	399	452	551	..	79	51	3,631	4,611	78 2-3
November ..	683	603	605	329	438	564	199	95	80	3,596	4,390	80 1-5
December ..	672	584	622	459	441	368	193	150	75	3,564	4,447	80
1884.												
January.....	675	541	656	506	548	358	195	160	63	3,702	4,692	80
February.....	564	478	529	463	569	347	151	162	67	3,330	4,284	77 3-5
March.....	559	496	505	531	615	474	168	167	83	3,598	4,434	80 1-8
April	574	511	544	435	534	467	137	193	90	3,485	4,662	74 5-6
May	557	515	635	389	602	451	97	180	91	3,517	4,685	75
June	541	459	586	389	496	416	81	158	83	3,209	4,246	75 1-3
July.....	569	510	627	334	585	418	66	168	78	3,355	4,637	72 1-3
August.....	519	485	622	315	621	333	89	186	91	3,261	4,429	73
September ..	499	480	616	358	588	265	85	160	102	3,153	4,379	72
Total	7,148	6,371	7,201	4,907	6,484	5,012	1,461	1,858	954	41,401	53,896	76 1-3

In making up labor tables Sundays are excluded.

TABLE showing number of days men were employed, kind of work done, and average per cent daily, in each month from September 30, 1883, to September 30, 1884.

LABOR.

MONTH.	Barn, farm and lawn.	Engineer and fire-man.	Carpenter.	Painting.	*	Tailor and shoe shop.	Ward work.	Dining-rooms.	School.	Care of room and persons only.	Total days' work.	Total days of patients per month.	Per cent. employed.
1883.													
October.....	210	144	37	28	969	81	1,201	623	....	...	3,293	3,343	75 1-8
November.....	409	114	46	26	947	76	878	599	....	...	3,095	4,263	72 1-2
December.....	451	171	....	43	989	74	783	510	....	...	3,021	4,280	70 1-10
1884.													
January.....	108	282	....	45	1,469	162	762	503	9	...	3,340	4,442	75 1-5
February.....	539	154	31	49	1,151	77	825	485	53	...	3,364	4,152	81
March.....	645	102	11	36	1,275	86	798	498	60	...	3,511	4,373	80
April.....	1,034	120	15	43	933	84	905	441	29	...	3,604	4,583	78 3-5
May.....	1,165	106	22	62	919	87	864	475	33	...	3,733	4,577	81 1-3
June.....	1,265	86	39	74	770	73	658	413	27	...	3,405	4,499	73 3-5
July.....	1,189	124	40	75	1,112	77	575	392	19	60	3,663	4,520	81
August.....	1,039	104	49	78	1,237	78	566	394	8	...	3,553	4,461	79 1-3
September.....	835	121	74	65	1,177	55	625	454	....	62	3,468	4,493	77
Total.....	8,889	1,628	364	624	12,948	1,010	9,440	5,787	238	122	41,050	51,986	78 5-12

* Includes kitchen, laundry cart, supervisor, office boy, and unclassified.

The work in an institution of this character and upon the grounds is never completed. We only await the proper season to begin improvements which will increase the facilities for out-of-door exercise, and beautify the surroundings of the asylum.

The women have done much of the laundry work, especially the ironing, and kept up the mending and sewing for the house. The record of this kind of work is much larger than upon any former year. Patients are occupied in all departments found necessary for the conduct of the asylum. The employment of an assistant supervisor, who, under the direction of the physicians, has had charge of the selection of men patients and attendants for work, has not only increased the numbers who have found occupation, but has made them more uniform and regular. The efficiency of these details has been improved as the adaptability of the patients for the various kinds of occupation has received more consideration. It has not been thought advisable to enter upon any form of manufacturing as advocated by some. The ordinary household work and different kinds of out door employment present a greater variety, and are more conducive to health, than the monotony and confinement incident to any single branch of industry, as brush-making and the like. The change of patients is so rapid, and the time spent in the asylum so short, that few can gain any special skill outside of their regular trade or employment, while nearly all can assist in some of the occupations as indicated on the supervisor's morning report.

INCREASED LIBERTY TO PATIENTS — PAROLE.

During the past few years, the tendency in the treatment of the insane in asylums has been in the direction of an increase of personal freedom, till now a degree of individual liberty is generally allowed, which at a period of time within the life of the present generation would not have been deemed compatible with safety or even possible. This is shown in the large diminution, and in some cases entire abolition of mechanical restraint, and seclusion, and in the greater degree of out-of-door exercise and occupation. Until a very recent period, this, however, was almost entirely restricted to airing courts, or the larger inclosures of asylum grounds, surrounded by high barriers presenting serious or insurmountable obstacles to the escape of the patients to whom such freedom was granted. These barriers have in many instances been removed, and patients have been allowed the use of the grounds, or of restricted limits of wider range, upon their parole not to violate the privileges given.

The amount of freedom has been farther increased in some institutions by the removal of all restrictions upon the movements of patients in the asylum wards, and the doors have been left unlocked not only between the wards, but those opening out from the asylum buildings. This open-door system, as it is called, has its advocates, very largely among the officers of the Scotch asylums. In the

Scotch Commissioners' report for 1883, we find the statement in regard to an asylum under their supervision, that there is free communication between all the wards, as well as free egress from each of them to the general grounds of the establishment. Several institutions report the use of this system, and speak highly of its advantages. The test of time and experience has not been such, however, as to lead to its general introduction, either abroad or in this country. The only statistics which have been presented show that the number of elopements from asylums where it is in force are three-fold as compared with those where large freedom is allowed, but in which this unrestricted liberty is not practiced. There is no question among those in charge of asylums that a greater degree of freedom than was formerly allowed is beneficial to the insane, and the recognition of this fact is a substantial advance in the treatment. There is no indication anywhere manifest to return to the old methods, but a healthy sentiment carried into action to reap all the advantages of real progress in this direction. However, such radical measures as removing all restrictions upon the movements of the insane should be undertaken with proper caution and consideration. There is danger that too much freedom may be allowed, and the question is already being agitated, whether in this step of unlocked doors and unrestricted liberty, the limits of safety have not been passed. The great increase of elopements, and some losses of life that have already occurred, are at least strongly suggestive that an affirmative answer must be rendered.

The first idea of an asylum was that it should be a place for the safe care of the lunatic, for the protection of society against his violent and irresponsible acts. At the present time the prominent idea is that an asylum is a place for the care and cure of the insane; still society has not yielded its right to protection. The necessity of the exercise of this right is shown by the many deeds of violence perpetrated by the insane, which leads to their being committed to asylums.

The law presupposes that ordinary care and watchfulness will be employed by those having them in charge. Can this be done under such a system? Granting, however, that some liberty must be allowed for the good of the patient, the question remains to be settled, what is best under the existing conditions of each institution? It is evident that the amount of liberty granted to the patients of an asylum near a great city, and surrounded by a dense population, would differ materially from that which might properly be allowed in an asylum located in the country, with unlimited grounds and in a sparsely-settled neighborhood. In regard to the character of the patient it is hardly necessary to state that those in the acute stage of the disease demand more watchful care and constant supervision than those in whom this stage has subsided, and who are more habituated to the routine of the asylum life.

But even this class cannot be trusted with full liberty; some suddenly-awakened desire to mingle again with the outside world fre-

quently seizes them, and the most trusted yield to the desire, and are reported missing. Some may look upon elopements with indifference, and say what of it; these patients will take care of themselves, and are better off at large than confined in an asylum; all cannot, however, treat the matter so lightly. The elopement of every patient is a matter of anxiety to one who feels the responsibility imposed in the care of the insane.

One argument frequently used in granting this enlarged freedom of unlocked doors is the increased happiness of the patient. We cannot expect any marked degree of happiness or contentment in an asylum. Who, if he possesses in any degree the normal feelings, can be content to be kept from home, from relatives and friends, from the labor and interests of life, and still be happy? What hope would such a mental state give for recovery? If a patient can be brought to endure the stay in an asylum, for the benefit he may derive, is not this all that can be asked? It is to me no wonder that patients desire to go home. You may care for them never so well, you may amuse them and make their surroundings more attractive than they ever were before, and still an asylum is a place of detention. The strong inducement that keeps patients who are granted their liberty from eloping is not the happiness they feel, but the fact that they are legally committed, and the hope that they may soon get well enough to receive their discharge. These we conceive to be the facts as regards institutions where acute cases are treated, but no rule can be laid down as to the degree of liberty that can be given in all institutions; every one must be a law unto itself.

It is possible in most asylums, to have a limited number of open wards, but practice shows that to accomplish this, injustice is often done, as there are some patients who are able to enjoy the benefits of the best ward, but whose strong desire to get home becomes so controlling that they cannot be trusted. They must, therefore, be kept in the close wards where the classification is not adapted to their condition or progress. This is a practical difficulty which has been found to exist by some who have tried the open-door system.

In view of the considerations here presented, we have not deemed it wise or prudent to make trial of the unlimited freedom which the open-door system contemplates, if honestly and faithfully carried out. We have, however, made use of a system of parole of the grounds in a number of cases. These have been largely among the convalescent patients and those whose quiet and orderly conduct and power of self-control give promise of using the parole without abusing it. Patients have enjoyed this privilege from a number of the wards. Among the men from three of the five, and the women from five of the six wards. It has in cases been found necessary, from changes in mental state, to cancel the parole and return the patients to the wards.

TABLE showing number of days spent by patients on parole, sick in bed, attending chapel and entertainments during the months of the year.

MONTH.	ON PAROLE.			SICK IN BED.			AT CHAPEL, SUNDAYS.			AT ENTERTAINMENTS.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
1883.												
October	858	77	935	194	135	329	341	275	616	78	131	209
November	833	91	924	202	200	402	345	232	577	348	373	721
December	831	92	923	279	229	508	504	335	839	576	700	1,276
1884.												
January	775	422	1,197	303	225	528	403	246	649	411	269	680
February	733	636	1,369	268	229	497	402	261	663	567	591	1,158
March	767	804	1,571	280	210	490	507	358	865	551	555	1,106
April	840	926	1,766	243	350	593	423	281	704	172	155	327
May	916	981	1,897	348	354	702	380	251	631	79	78	157
June	764	848	1,612	421	208	629	470	347	817	.....	.....
July	698	858	1,556	357	213	570	372	268	640	.....	.....
August	747	920	1,667	414	235	649	377	202	579	.....	.....
September	812	839	1,651	335	220	555	470	235	705	93	69	162
Total	9,574	7,494	17,068	3,644	2,808	6,452	4,994	3,291	8,285	2,875	2,921	5,796

This plan has been in operation in the men's department during the whole year, and in the women's department in its present extent for nine months only. The average among the men who have enjoyed the privilege has been twenty-eight, and among the women thirty-two, or about twenty per cent of the whole number. The selection has been made largely from those who have assisted in the ward work, and who take the out-of-door exercise as a recreation.

The women go out in parties of two or three or more, and never alone. The patients exercise a watchful care over each other and frequently report to the physicians changes which they note in those accompanying them, and sometimes the individual appreciates unfavorable changes in his mental or physical state, and voluntarily relinquishes the parole.

Thus far the plan has been successful. The time during which it has been in operation is, however, too short to enable us to draw any positive conclusions. We are simply encouraged to continue it and report it as a part of the year's record.

In our report of last year we gave a description of the asylum, and of the methods of administration. We continue the subject and present a condensed statement of the supervision of the asylum, as it relates to the officers, employees and patients.

These legal provisions and established rules and methods, coupled with honesty and integrity of purpose in those in charge, would seem to any unprejudiced mind to furnish every possible security against abuses or mal-administration in the conduct of insane asylums.

The general Lunacy Law of the State, chapter 446, Laws of 1874, the rules and regulations of the asylum, and the methods employed show the following provisions for

THE SUPERVISION OF THE ASYLUM, AND OF THE PATIENTS TREATED THEREIN.

First. The asylum is subject to visitation, and all its records to inspection by the Governor, the State officers and the Legislature, or any person they may appoint.

Second. *A State Commissioner in Lunacy* is appointed, whose duty it is to examine into and report annually to the Legislature the condition of the insane, and upon the management and conduct of asylums, both public and private, and other institutions for their care and treatment. He is also empowered to compel the attendance of witnesses and to examine them under oath, when from evidence before him there is reason to believe that any person is wrongfully deprived of his liberty, or is cruelly, negligently or improperly treated in any asylum, institution or establishment for the custody of the insane.

Third. *State Board of Charities*.—The law organizing the State Board of Charities authorizes the Commissioners, or any of them, to visit and inspect, as often as they may deem proper, the asylums and charitable institutions receiving State aid.

Fourth. *Board of managers.*—The law requires the board of managers to maintain an efficient inspection of the asylum, for which purpose they shall make frequent visitations, not only at the time of the regular meetings of the board, but by individual members at other times.

Fifth. *The superintendent* is required daily to ascertain the condition of the patients and prescribe their treatment. He shall also, from time to time, give such orders and instructions as he may judge best calculated to insure good conduct, fidelity and economy in every department of labor and expense. And he is authorized and enjoined to maintain salutary discipline among all who are employed by the institution, and to enforce strict compliance with such instructions, and uniform obedience to all the rules and regulations of the asylum.

Sixth. *The assistant physicians* are to visit all the patients in their respective divisions, in the morning and afternoon and as much oftener as may be necessary. They are carefully to observe their wants and treatment; to see that the attendants and assistants are faithful and kind; attentive to the wants of patients, and vigilant in the discharge of their duties. For the due performance of the duties enjoined, they shall spend much time upon the wards and be constantly in communication with the supervisors, attendants and assistants, and shall carry out the plans and instructions of the superintendent in the best manner they are able.

Seventh. *The matron* is to look carefully after the women patients, to see that they are kindly treated, that the attendants are properly instructed and are faithful. She has for a special duty to see that the sick have constant and kind nursing and proper care.

Eighth. *The steward* is to spend as much time as possible in the division appropriated to the men patients, and see that they are kindly treated, and that attendants do their duty in the care of patients.

Ninth. *Supervisors* are selected from the most experienced and capable attendants. Their duties, beside those of an attendant, are to have general charge of a department (consisting of five to six wards), to see to the administration of medicine, and to communicate with the physicians, the steward and matron, regarding the wants and condition of patients. They attend especially to the sick, instruct new attendants in their duties, see that they are efficient, industrious and kind. They go through the wards frequently and at irregular times and report at once to the medical officers any important occurrence.

Tenth. *Attendants.*—There are upon most of the wards of the asylum four attendants, or one to about eight patients, classified as follows: One in charge, two assistants in the care of the wards, and one in the dining-room. Those in charge of wards are promoted to the positions because of ability to assume the responsibility as shown by more or less protracted trial and experience in subordinate places.

They are governed by the rules and regulations of the asylum in which their duties are specified and also the manner of the performance of the same. The law of kindness is not only enforced by the rules but by those in authority.

Eleventh. During the night the wards are visited constantly by the night watchers who observe and care for individual patients as directed by the physicians and demanded by their condition. They make an hourly report of such as are sick, noisy, out of bed, or need special attention on account of their habits. Such are the direct means of supervision employed, which are recognized and provided by the law or by the rules and regulations of the asylum. To these should be added the following, which experience shows to be important and valuable sources of information regarding the conduct of attendants and the treatment of patients.

First. The fullest freedom of communication between patients and physicians alone and apart from attendants, and all complaints are patiently listened to and investigated.

Second. The friends of patients visit them frequently and freely. They see them either in the visiting rooms or the dining room of the ward, and have an opportunity to talk with them privately and without interruption.

Third. The wards are visited and inspected daily by public officers and general visitors who desire to see the arrangements for the care of patients. They are accompanied by one of the officers of the asylum or by some one designated for the purpose.

Fourth. Patients are allowed to correspond freely with their friends, and their letters are not permitted to be read by the attendants.

Fifth. Some of those employed in the various departments of outside labor take their meals and room upon the wards.

Sixth. The wards are frequently visited at irregular intervals of time during the day, by those employed in making repairs, as the carpenter, plumber, glazier and engineer.

Seventh. There is a thorough system of reports made daily regarding occupation, condition and habits of patients. These indicate what patients are employed and the character of their work, those who go out for air and exercise, those who are sick in bed or on use of medicine or extra diet, such as are fed or need attention, from their indifference to personal habits of cleanliness.

Eighth. There is a daily record of all restraint employed, the character of it, the name of the patient, and the number of hours used. It can only be applied by order of a physician.

Ninth. There is a record kept of all medicine prescribed, the name of the patients, the size and frequency of the dose, when began and when discontinued.

Tenth. Attendants are only allowed to absent themselves from their wards by permission of the medical officers. A record is kept of all such permissions and the time for which they are granted.

Eleventh. A book is kept by each supervisor in which all blows and injuries inflicted, either by patients or attendants, and all the circumstances, with the names of witnesses, are reported.

Further records, notably the history of cases, are kept by the medical officers. This history of the individual patients consists in part of a condensation of the information derived from the above-mentioned records.

From these numerous official and other sources of information the supervision over the wards is made constant, continuous and efficient.

SCHOOL.

The school has been continued during the year, and there are now thirteen pupils in attendance, varying in age from eleven to twenty-four years. Of these, nine are girls and four are boys. The branches taught are reading, writing, arithmetic, and spelling. They are formed so far as possible into two classes, and some of them make marked and satisfactory improvement. One German girl is rapidly learning to speak and write English, and a feeble-minded boy of seventeen, who has never made any progress though much at school, is rapidly learning to read. Two of the pupils are epileptic, and others owing to changes in mental states are somewhat irregular in their attendance.

The school is held in one of the dining-rooms during the morning hours. The teacher is an attendant upon the ward who has had experience in one of the schools of Buffalo. The order and good conduct observed are the same as exist in outside schools. We do not speak of this effort as any thing new or to compare it to what is being done in some other institutions, but simply to note it as among the means of occupation found useful in certain cases. It assimilates the life of these younger people to that of others of the same age or to their former life outside the asylum, and they certainly derive benefit from this mental effort. This was recognized by Dr. Brigham, the first superintendent of the Utica Asylum, who writes as follows in the first annual report in 1844, now forty years ago: "The school is beneficial especially to the convalescent, those that are melancholy, and those who appear to be losing their mental powers, and sinking into a demented condition. Those who have recovered but continue with us for fear of a relapse, and to test the permanency of their recovery, derive both pleasure and profit from attending. Those that are melancholy and depressed are beguiled from their sorrows, and for awhile made to forget them, and thus the way is often prepared for their restoration. Those who appear to be losing in mental power are much benefited by the daily and regular exercise of their minds; their memories improve, and they become more active and cheerful. The want of proper mental occupation according to our observation is one of the most pressing wants of lunatic asylums." Since this was written schools have

been included among the means of moral treatment in several asylums, but it has remained for our Irish friend, Dr. Lalor, to elevate it to such prominence that the Richmond District Lunatic Asylum at Dublin is specially noted for its regular and systematic instruction given to a large number of patients. In his hands it has proved an invaluable agent of treatment. Dr. Dwyer, of the Mullingar District Asylum (of Ireland), has met with such success in conducting a school for patients that he writes: "While I am on the subject of schools I cannot refrain from expressing my astonishment that every well-organized asylum has not its school. I have seen wonderful results from schools, and quotes Pinel as saying: 'Thirty years' experience has taught me that a striking analogy subsists between the act of educating and teaching the young and that of managing the insane, as the same principles are applicable to both.' " This analogy is constantly noted by those who have charge of the insane, but all do not recognize it as so far-reaching as to warrant the effort to teach all of the insane. The different classes of patients treated in different institutions will always and very properly lead to diversity of practice as to the numbers taught in schools.

ATTENDANTS.

It is a self-evident fact that much of the success which attends the conduct of an asylum depends upon the character of the attendants, who are necessarily intrusted with the immediate care of patients. The selection and subsequent training of a corps of attendants is a matter requiring not only time and patience, but the exercise of wise discrimination in judging of character and of adaptability to the work to be performed. To make a good attendant requires a combination of original qualities which are to be further developed by constant supervision and instruction. The requirements are good health, patience, kindness of disposition, intelligence, a fair degree of education, and that coolness and self-control which enables one to meet successfully the varying states of patients and retain their respect. Added to this, there must be a fidelity to the trust reposed, a willingness to receive direction and reproof and a love for the work. To obtain such as approximate to the requirements of the position is at times, and in some locations, a matter of serious difficulty.

Applications are usually plentiful enough, but they are not always of the class whose services are of value. Some of those who apply have such a misconception of the duties, that a trial is not even needed to prove their unfitness for the work. They are imbued with the idea—a heritage of the past—that as attendants upon the insane, they are simply keepers or wardens, who are to receive large pay for very little work. Others seem to believe that their ill success in other occupations and the approaching infirmities of age give them a special claim, and others, that delicate health, inability to do hard

work, and the fact that they can receive good medical care and spend their time indoors make it desirable, especially for themselves, to secure the appointment. Others seek the place as offering a good home and temporary employment during the winter, or until dull times are over and work can be obtained in their trades or former occupations. Others who apply are incapacitated by their youth, their questionable habits, or manifest lack of intelligence and education. Others plead former experience in some other institution when inquiry develops the fact that the services in a like capacity were gladly dispensed with or discontinued for cause.

Such applications are readily disposed of without serious consideration. In the employment of attendants those only are considered eligible whose age, health, habits, character, education and intelligence and recommendations give a reasonable hope of ultimate success in the duties of the position. These duties are explained as fully as possible, and the further fact that the term of service must be for one year, at least, if they prove satisfactory.

Since the rules established by the Civil Service Commission in regard to asylum attendants have been in operation, all applicants have been required to pass an examination as to educational qualifications. In each asylum a board of examiners is organized from the staff of officers, to whom the superintendent, after investigation, refers each case. As showing the satisfactory condition of affairs under the methods in use prior to the organization of the Commission, we quote from the circular issued in November, 1883: "The administration of the asylums of the State appear to have been so satisfactory, both in the service rendered and in the general absence of the abuse of patronage, that the efforts of the Commission in regard to them are now mainly confined to the formulation of the rules and laws that shall interfere as little as possible with the existing conditions as known to the Commission." They, therefore, recommend upon the report of the secretary: "So far as the matter has been considered by the Commission, and largely based upon the report of my visits to most of the asylums in the months of July and August last, the following general scheme of qualifications is entertained. No restrictions to be imposed regarding nativity, citizenship, place or length of residence; male applicants to be not less than twenty nor more than forty-five years of age; to be free from physical defects or disease calculated to impair efficiency; to furnish satisfactory vouchers as to moral character, cleanly and temperate habits and equable disposition. Such applicants to be able to read and write and work correctly small sums in addition and subtraction."

Since January, 1884, all persons employed as attendants have furnished the recommendations and been examined as required by the Commission. Fifteen women and seven men have been examined. As the requirements do not differ essentially from those demanded prior to the establishment of the Commission, and there were no abuses of patronage to correct, we are not able to report any *marked* results from the change. The fact that an examination is required,

and that the position is thus more distinctly recognized as a department of the public service of the State, will, we think, tend to elevate the character of the applicants. The knowledge of such an examination is sufficient to deter some who are cognizant of their own defects in education from risking the chance of failure, still a number of applicants have already been rejected. After passing the examination, by the by-laws of the asylum, all employees are required to sign a contract as follows :

Agreement.

In consideration of being employed by the managers of the Buffalo State Asylum for the Insane, I do hereby agree to work for the said asylum, for one year from this date (unless sooner discharged by the superintendent thereof who has the option to discharge me at any time) at any work or service assigned me by the said superintendent or other officers thereof.

My compensation is to be at the rate of dollars per month, except for my first month's service, which is subject to the following conditions, to-wit: In case I leave my employment before the expiration of one year from date without permission of the superintendent, or am discharged for the violation of the rules of the asylum, or neglect of duty, no compensation is to be paid me for my first month's service. In case I remain one year and perform my contract, I am to receive compensation for my first month's service, on the expiration of the year.

I further agree to observe and obey the rules and regulations of the asylum, and the directions of the superintendent or other officers of such asylum having authority. And I further agree, that if I continue in the employment of the asylum after the expiration of one year from this day, the terms and conditions of this contract so far as may be shall apply to such further service.

Dated Buffalo, this day of , 188 .

The special training of attendants follows their employment. Every one is furnished, and required to familiarize themselves with a copy of the rules and regulations of the asylum, in which the duties of the attendants and rules for their guidance are specifically stated under the several heads of, duty to the institution, toward the patients and toward each other. Attendants receive personal instruction in their duties from the medical officers and from the supervisors of their respective departments, and from the head attendant of the ward to which each is assigned. Thus from their entrance to the asylum, they are under close supervision and an efficient process of training. After sufficient time has elapsed to enable a fair judgment to be formed as to their capability, if found insufficient, or for any reason disqualified for the position, they are informed of the fact and allowed to leave. If they have violated the rules either willfully or through negligence they are discharged. Besides the daily training to which they are subject, they receive instruction in classes. These were begun October, 1883. The rules are fully ex-

plained, and the reason for them, and their importance stated. After this, lectures are given in physiology, hygiene, and the art of nursing; they are taught what to do in case of accident, of injury, how to control hemorrhage, to perform artificial respiration, to count the pulse, to take temperatures and to observe symptoms. In short, the instruction, so far as practicable among the insane, is made to conform to that given in a regular training school. Such instruction was given during the winter months of the last year by the assistant physicians. During the summer, as the attendants were occupied so much out of doors, stated lectures were discontinued. They have been again resumed. It is intended, after due instruction, to award a diploma upon examination, to such as are found competent and qualified, and desire to continue the occupation of attendant in an asylum, or to engage in general nursing.

There are difficulties in the way of conducting a training school in an asylum; one of the most serious is to find those of sufficient education to appreciate the advantages offered, and who are willing to devote themselves to the care of the insane. Too many look upon it as a present rather than a life work, and the changes in civil condition, or in the circumstances of their families, as sickness, removals, and the like, constantly draw many away from this field of work. Permanency in place is not a special virtue of the American citizen, but the desire for change in the hope of bettering their condition is a prominent characteristic of both sexes of our people. In other countries, especially in England, the system of pensioning the officers and attendants in asylums after a certain length of time induces them to remain in their position, and the institutions reap the benefit of their experience gained from long service. The civil service may assist somewhat in adding permanency to the positions. At present the great advantage to asylums from the civil service examinations is the moral support it gives, that all attendants and employees have received appointments strictly according to law, and are possessed of the qualifications demanded by statutory provisions.

REPORT OF THE STEWARD.

OF THE PRODUCTS OF THE FARM AND GARDEN.

116 tons hay at \$12.....	\$1,392 00
586 bushels wheat at 85 cts.....	498 10
770 bushels oats at 35 cts.....	269 50
600 bushels mangel wurzel at 25 cts.....	150 00
352 bushels beets at 40 cts.....	140 80
526 bushels potatoes at 40 cts.....	210 40
21 bushels tomatoes at 25 cts.....	5 25
30 bushels carrots at 30 cts.....	9 00
3 bushels green peas at 40 cts.....	1 20
18 dozen green corn at 7 cts.....	1 26
14 dozen bunches radish at 50 cts.....	7 00
3825 heads of cabbage at 7 cts.....	267 75
	<hr/>
	\$2,952 26
Milk produced from October 1, 1883, to September 30, 1884 :	
20,900½ gallons at 16 cts.....	3,344 08
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Total.....	\$6,296 34
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Value of stock on hand October 1, 1884 :	
Value of hogs on hand.....	\$873 00
22 cows at \$60 each.....	1,320 00
7 horses at \$200 each.....	1,400 00
	<hr/>
	\$3,593 00
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REPORT OF THE MATRON.

The following is a list of articles made in the sewing-room :

Aprons	80
Bed ticks.....	69
Chemises	236
Camisoles.....	2
Coats	2
Curtains.....	147
Cupboard spreads.....	24
Comfortables	62
Dresses	192
Drawers, pairs of	183
Dresses, night.....	34
Napkins	18
Pillow slips	475
Pillow ticks.....	36
Stockings, pairs, knitted	504
Shirts.....	360
Suits, full.....	3
Sheets.....	549
Skirts	93
Towels	263
Table spreads.....	15
Wrappers.....	30
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Total	3,377
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There were mended in the sewing-room of the women's wards 10,969 articles.

The asylum has been much favored by its friends in gift of papers and periodicals, and of personal services in the entertainment of patients. We desire to acknowledge our indebtedness to all of them, and first to the publishers of the following papers, which have been regularly and gratuitously furnished the wards. They each have a large circle of interested readers, and it is doubtful if an equal amount of pleasure is conferred by any single copy of the issues of these respective papers. We earnestly hope they may be continued.

They are as follows: *Daily Morning Courier*, Buffalo, N. Y.; *Daily Morning Express*, Buffalo, N. Y.; *Daily Frei Presse*, Buffalo, N. Y.; *Daily Morning Times*, Buffalo, N. Y.; *Catholic Union* (2 copies), Buffalo, N. Y.; *Daily Morning Herald*, Roches-

ter, N. Y.; *Weekly Steuben Courier*, Bath, N. Y.; *Weekly Journal* Dunkirk, N. Y.; *Weekly Husbandman*, Elmira, N. Y.; *Weekly Gazette & Free Press*, Elmira, N. Y.; *Weekly Argus*, Franklinville, N. Y.; *Weekly Enterprise*, Gowanda, N. Y.; *Weekly Times*, Hornellsville, N. Y.; *Weekly Standard*, Jamestown, N. Y.; *Weekly Country-Side*, Jamestown, N. Y.; *Weekly Democrat*, Lockport, N. Y.; *Weekly Cattaraugus Republican*, Little Valley, N. Y.; *Weekly Era*, Mayville, N. Y.; *Weekly Sunday Morning Herald*, Olean, N. Y.; *Weekly Local*, Silver Creek, N. Y.; *Weekly Journal & Herald*, Springville, N. Y.; *Weekly Bolivar Leader*, Bolivar, N. Y.

We thank the persons mentioned below, for gifts of books, papers, etc., which have been received during the year.

Mrs. Sophia G. Hadley, 14 years of *Atlantic Monthly*; Mark M. Maycock, 15 bound volumes and illustrated papers; Hon. Arthur W. Hickman, bound volumes of *Putman's Magazine* and other books; Mrs. L. T. Morse, bound volumes; Mrs. Seaton, illustrated papers and magazines; Mrs. Trabble, illustrated papers; Mrs. Chas. H. Utley, periodicals and *Harper's Magazine*; the *Christian Advocate* has sent exchanges nearly every week; Mrs. Jewett M. Richmond, Mrs. John Otto, Mrs. J. J. McWilliams, S. Strangaard, Mrs. S. Shepard, Miss Corning and Rev. Dr. A. T. Chester have sent papers on several occasions. Mrs. A. T. Chester gave 350 Christmas cards which were distributed to, and enjoyed by, the patients. Mr. H. G. Wolter contributed a full year's subscription of the *Daheim*, a German monthly.

The following persons have assisted in giving entertainments and we hereby record our obligations. Entertainment, musical, by Mendelssohn Club, Allen G. Bigelow, conductor; entertainment, musical and literary, by students of Buffalo Female Seminary, assisted by Mr. Seth Clark and Mr. A. E. Alling; entertainment, musical and literary, by Mr. J. C. Hall and members of Sons of St. George; entertainment; musical and dramatic, by Miss Reid and party; entertainment, musical and literary, by Mr. Pattenden, his children, and the children of the Riverside Sunday school; entertainment by Mr. C. A. Dennis and Mr. Phillip and others. The asylum employees have given several literary and dramatic entertainments in which they were assisted by Mr. Pattenden, Mr. Cummings, Miss Baker, Mr. H. Emmett, Mr. and Miss Mayback and Miss Carter.

The patients have also enjoyed several magic lantern exhibitions given by the following gentlemen: Mr. E. L. Wilson, of Philadelphia, subject, Scenes from Egypt; lecture and magic lantern display, by Rev. Dr. J. J. Landers, of Dunkirk, N. Y., subject, Views of Paris; second lecture by Rev. Dr. Landers, Views of Arctic Regions. At the first of these lectures the Rev. Dr. Chester read a description and the second, Rev. Dr. Van Bokkelen. Two magic lantern displays by Mr. A. W. Simon, 1st, Views of Rome; 2nd, Views of London.

The following gentlemen delivered lectures during the course of the winter and our indebtedness is hereby acknowledged: Rev. Drs. Green and Peck, of Buffalo, and Hartley, of Utica; Rev. Mr. Burton and G. C. Jones of Buffalo.

In the chapel services we have been assisted in our singing and music by Miss Mabel Chester, Mr. Seth Allen, Miss Sears, Miss Schneider, Mr. McDonald, Mr. Baldwin, by Mr. and Miss Pattenden, and by the Riverside choir. Mr. Pattenden has played the organ every Sunday and attended the Friday evening rehearsals without remuneration. We return our grateful thanks for his self-sacrifice and kindness.

Services have been held every Sunday but two, when the chapel was closed on account of repairs. These have been conducted by the chaplain, the Rev. Dr. A. T. Chester, and other clergymen as follows: Rev. Dr. Van Bokkelen; Rev. Robert Dick; Rev. Mr. Smith, of Ohio; Rev. Mr. Legwood, of Philadelphia; Rev. Mr. Burton; Rev. Mr. Langille; Rev. Mr. Egbert; Rev. Mr. Loder, of New York; Rev. Dr. Powers, of Brooklyn; Rev. Dr. Blackman, of Cincinnati; Rev. Dr. Coddington, of Syracuse.

There is no diminution in the number of visitors to the asylum, both to see their friends and look over the institution. The nearness to the city and the fact that so many patients are residents of Buffalo will fully account for the large numbers that are present on visiting days. We have endeavored to keep a record of all the visitors of the different classes. We found there were some 3,000 who were escorted through the asylum wards, such as are occupied by the quiet and convalescent, and about 4,000 came as friends to visit the patients. The usual rules in regard to visits have been carried out. The visits of official persons other than State officers have not been recorded. These are numerous and frequent.

Of the State officers, we report two visits from the State Engineer, Hon. Elnathan Sweet, one or more from Senator Robert C. Titus and Assemblymen Clinton, Erwin and Sipp. The asylum has been visited during the year by Dr. Stephen Smith, Commissioner in Lunacy, on three different occasions, during which he spent eight days in daily and nightly inspections, a record of which will be made to the Legislature in his report.

The board of managers have made forty-six individual visits, besides attending the quarterly meetings.

The regular monthly meetings of the executive committee, for the audit of bills and the transaction of business, have been held with a quorum present on every occasion.

The officers of the asylum have been called upon for more continuous labor than has before been demanded. The rapid change in the population largely increases the work and anxiety for the physicians, and all employed in the care of patients.

I wish to record my appreciation of faithful devotion to the work, and honest support on the part of the assistant physicians, the stew-

ard and matron. The chaplain, Rev. Dr. Chester, has constantly supplied the pulpit, has assisted in providing lectures for the patients, attended the sick when requested, and in every way shown his interest in the asylum and its patients. The corps of attendants and employees, as now organized, is efficient, and shows a commendable interest in their occupation and in the welfare of those intrusted to their care. We are indebted to them for much of the success which attends the conduct of the asylum.

With this record of the past, the evidence of a prosperity which should make us devoutly thankful, we enter upon the future, determined, by divine aid, to achieve increased success in alleviating the suffering of humanity and promoting the well-being of our fellows, whose misfortunes appeal to our sympathy and demand our assistance.

J. B. ANDREWS,
Superintendent.

January 14, 1885.

STATISTICAL TABLES

OF THE BUFFALO STATE ASYLUM FOR THE INSANE, FOR THE YEAR ENDING SEPTEMBER 30, 1884.

TABLE No 1.

	Men.	Women.	Total.
Patients in the asylum Sept. 30, 1884.....	159	170	329
Admitted during the year.....	158	117	275
Total in the asylum	317	287	604
Discharged recovered.....	42	38	80
Discharged much improved.....	6	7	13
Discharged improved.....	15	10	25
Discharged unimproved.....	49	39	88
Died.....	24	19	43
Not insane.....	5	3	8
Total.....	141	116	257
Remaining in the asylum Sept. 30, 1884...	176	171	347

TABLE No. 2.

Received on first or subsequent admissions.

Number of admissions.	Men.	Women.	Total.
First	153	113	266
Second.....	4	4	8
Third.....	1	....	1
Total cases.. ..	158	117	275

TABLE No. 3.

Showing the number of attacks in two hundred and seventy-five cases.

	Men.	Women.	Total.
First attack.....	149	96	245
Second attack.....	7	15	22
Third attack .....	....	5	5
Fourth attack.....	2	....	2
Several attacks.....	....	1	1
Total	158	117	275

TABLE No. 4.
Annual admissions, discharges and deaths.

	ADMITTED.			DISCHARGED RECOVERED.			MUCH IMPROVED.			IMPROVED.			UNIMPROVED.			DIED.			NOT INSANE.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
1881	122	97	219	13	6	19	4	3	7	2	2	4	6	4	10	14	8	22	1	3	4
1882	157	116	273	30	25	55	9	6	15	11	2	13	28	20	48	10	6	16	5	3	8
1883	139	126	265	35	30	65	9	7	16	23	14	37	20	21	41	33	12	45	6	3	9
1884	158	117	275	42	38	80	6	7	13	15	10	25	49	39	88	24	19	43	5	3	8
Total... ..	576	456	1,032	120	99	219	28	23	51	51	28	79	103	84	187	81	45	126	17	6	23

TABLE No. 5.

General statistics of the asylum from its opening.

Total number of admissions.....	1,032
Total number discharged recovered.....	219
Total number discharged much improved	51
Total number improved	79
Total number unimproved	187
Total number died.....	126
Total number insane	23
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Total number	685
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Remaining September 30, 1884.....	347
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TABLE No. 6.

Form of insanity in two hundred and seventy-five cases admitted.

	Men.	Women.	Total.
Acute mania.....	42	36	78
Melancholia	33	29	62
Dementia	32	22	54
Chronic mania	14	15	29
Sub-acute mania.....	7	1	8
Paroxysmal mania.....	2	2	4
Periodic mania.....	2	..	2
Epilepsy with mania	4	1	5
Epilepsy with dementia.....	6	4	10
Paresis	10	3	13
Not insane	6	4	10
<hr/>		<hr/>	<hr/>
Total	158	117	275
<hr/>		<hr/>	<hr/>

TABLE No. 7.

Assigned causes in two hundred and seventy-five cases admitted.

	Men.	Women.	Total.
Ill-health from grief and anxiety, over- work or loss of sleep.....	34	26	60
General ill-health.....	21	25	46
Ill-health from want .....	..	2	2
Ill-health from excessive child-bearing ...	..	1	1
Ill-health from sea-sickness.....	2	..	2
Puerperal .....	..	9	9
Change of life.....	..	4	4
Abortion .....	..	1	1
Fevers, malarial, typhoid and scarlet	5	2	7

	Men.	Women.	Total.
Intemperance	11	..	11
Masturbation	4	1	5
Syphilis	10	1	11
Opium habit	2	1	3
Bright's disease	1	..	1
Meningitis	1	1	2
Sun-stroke	2	..	2
Rheumatism . . . . .	..	1	1
Phthisis	1	1	2
Injury from concussion	1	..	1
Injury to spine	1	..	1
Injury to head	8	..	8
Cerebral hemorrhage . . . . .	..	1	1
Apoplexy	3	..	2
Paraplegia	1	..	1
Senility	2	2	4
Epilepsy	10	5	16
Chorea	1	1	2
Paresis	10	3	13
Not insane	6	4	10
Unascertained	21	25	46
Total	<u>158</u>	<u>117</u>	<u>275</u>

TABLE NO. 8.

Civil conditions of two hundred and seventy-five cases.

	Men.	Women.	Total.
Married	75	64	139
Single	71	42	112
Widowed	12	12	24
Total	<u>158</u>	<u>117</u>	<u>275</u>

TABLE NO. 9.

Degree of education of two hundred and seventy-five cases.

	Men.	Women.	Total.
Common	118	95	213
Read and write	15	4	19
Academic	6	5	11
Read only	7	9	16
Collegiate	5	..	5
None	7	4	11
Total	<u>158</u>	<u>117</u>	<u>275</u>

TABLE No. 10.

Hereditary transmission in two hundred and seventy-five cases.

	Men.	Women.	Total.
Maternal branch.....	7	21	28
Paternal oranch.....	6	4	10
Paternal and maternal branches.....	2	..	2
Insane relations.....	8	19	27
	<hr/>	<hr/>	<hr/>
Total	23	44	67
	<hr/>	<hr/>	<hr/>

TABLE No. 11.

Suicidal and homicidal tendencies in two hundred and seventy-five cases admitted.

Attempted suicide.....	23
Threatened suicide.....	14
Contemplated suicide.....	4
Attempted homicide.....	14
Threatened homicide.....	14
Attempted suicide and homicide.....	3
Threatened suicide and homicide ..	15
Contemplated homicide.....	2
	<hr/>
Total.....	89
	<hr/>

TABLE No. 12.

Ages of two hundred and seventy-five cases admitted.

	Men.	Women.	Total.
From 10 to 15 years.....	4	1	5
From 15 to 20 years.....	5	7	12
From 20 to 25 years.....	15	21	36
From 25 to 30 years.....	27	25	52
From 30 to 35 years.....	16	8	24
From 35 to 40 years.....	21	11	32
From 40 to 50 years.....	29	26	55
From 50 to 60 years.....	23	9	32
From 60 to 70 years.....	14	7	21
From 70 to 80 years.....	3	1	4
From 80 to 90 years.....	1	1	2
	<hr/>	<hr/>	<hr/>
Total.....	158	117	275
	<hr/>	<hr/>	<hr/>

TABLE No. 13.

Supposed duration of insanity before admission in two hundred and seventy-five cases.

	Men.	Women.	Total.
One month or less.....	38	29	67
One to three months.....	14	19	33
Three to six months.....	16	6	22
Six to nine months.....	12	5	17
Nine to twelve months.....	7	4	11
Twelve to eighteen months.....	12	11	23
Eighteen to twenty-four months.....	1	3	4
Two to three years.....	10	3	13
Three to four years.....	1	3	4
Four to six years.....	4	7	11
Six to ten years.....	1	1	2
Ten to twenty years.....	2	6	8
Unascertained, chronic.....	40	20	60
Total.....	158	117	275

TABLE No. 14.

Nativity of two hundred and seventy-five cases admitted.

	Men.	Women.	Total.
New York.....	85	66	151
Germany.....	30	11	41
Ireland.....	11	19	30
England.....	12	7	19
Canada.....	6	6	12
Pennsylvania.....	1	..	1
New Jersey.....	..	1	1
Connecticut.....	..	1	1
Massachusetts.....	1	..	1
Ohio.....	1	3	4
Rhode Island.....	2	..	2
Vermont.....	1	2	3
California.....	1	..	1
Scotland.....	2	1	3
Sweden.....	1	..	1
Poland.....	1	..	1
Holland.....	1	..	1
Switzerland.....	1	..	1
Denmark.....	1	..	1
Total.....	158	117	275

TABLE No. 15.

Occupation of two hundred and seventy-five cases admitted.

Housekeepers	78	Cigarmaker.....	1
Farmers and farm laborers.	35	Sailor.....	1
Houseworkers	27	Dentist.....	1
Laborers	18	Printer.....	1
Workers in wood.....	11	Editor.....	1
Workers in metal.....	10	Publisher.....	1
Workers in stone.....	1	Mail carrier.....	1
Workers in leather.....	8	Nurse.....	1
Clerks.....	6	Express messenger	1
Merchants	6	School girl.....	1
Tailors.....	6	Barber	1
Railroaders.....	6	Tailoress.....	1
Agents.....	4	Minister.....	1
No occupation.....	4	Horse trainer.....	1
School boys.....	4	Foreman.....	1
Physicians.....	3	Butcher.....	1
Painters.....	3	Telegraph operator.....	1
Students.....	2	Night watch.	1
Teachers.....	2	Book-keeper	1
Engineers.....	2	Boatman.....	1
Manufacturers.....	2	Tanner.....	1
Liverymen.....	2	Apprentice.....	1
Bartenders.....	2	Actor.....	1
Bakers	2	Upholsterer	1
Peddlers.....	2	Table waiter.....	1
Milliners.....	2		
Dressmaker	1	Total.....	275
Lawyer.....	1		

TABLE No. 16.

Ages of eighty cases recovered.

	Men.	Women.	Total.
From 15 to 20 years.....	4	3	7
From 20 to 25 years.....	8	7	15
From 25 to 30 years.....	7	8	15
From 30 to 35 years.....	1	4	5
From 35 to 40 years.....	6	6	12
From 40 to 50 years.....	10	6	16
From 50 to 60 years.....	5	3	8
From 60 to 70 years.....	1	1	2
Total	42	38	80

TABLE No. 17.

Form of insanity in eighty cases recovered.

	Men.	Women.	Total.
Acute mania	20	21	41
Melancholia	8	12	20
Sub-acute mania	3	1	4
Chronic mania	1	..	1
Paroxysmal mania	2	2	4
Dementia	3	2	5
Epilepsy with mania	3	..	3
Periodic mania	2	..	2
Total	<u>42</u>	<u>38</u>	<u>80</u>

TABLE No. 18.

Causes of death in forty-three cases.

	Men.	Women.	Total.
Apoplexy	3	2	5
Cerebral hemorrhage	4	1	5
Cerebral congestion	1	..	1
Meningitis	1	1	2
Phthisis .....	..	3	3
Pneumonia	1	..	1
Heart disease	2	1	3
Bright's disease	1	..	1
Chronic diarrhœa .....	..	1	1
Dysentery	1	..	1
Chorea .....	..	1	1
Diffuse cellulitis .....	..	1	1
Asthenia	3	3	6
Paresis	6	4	10
Suspension .....	..	1	1
Shock from injury, self-inflicted	1	..	1
Total	<u>24</u>	<u>19</u>	<u>43</u>

TABLE No. 19.

Ages of forty-three who died.

	Men.	Women.	Total.
From 15 to 20 years .....	..	1	1
From 20 to 25 years .....	..	2	2
From 25 to 30 years	2	2	4
From 30 to 40 years	3	4	7
From 40 to 50 years	7	3	10
From 50 to 60 years	5	4	9
From 60 to 70 years	3	2	5
From 70 to 80 years ..	3	1	4
From 80 to 90 years	1	..	1
Total	<u>24</u>	<u>19</u>	<u>43</u>

TABLE No. 20.

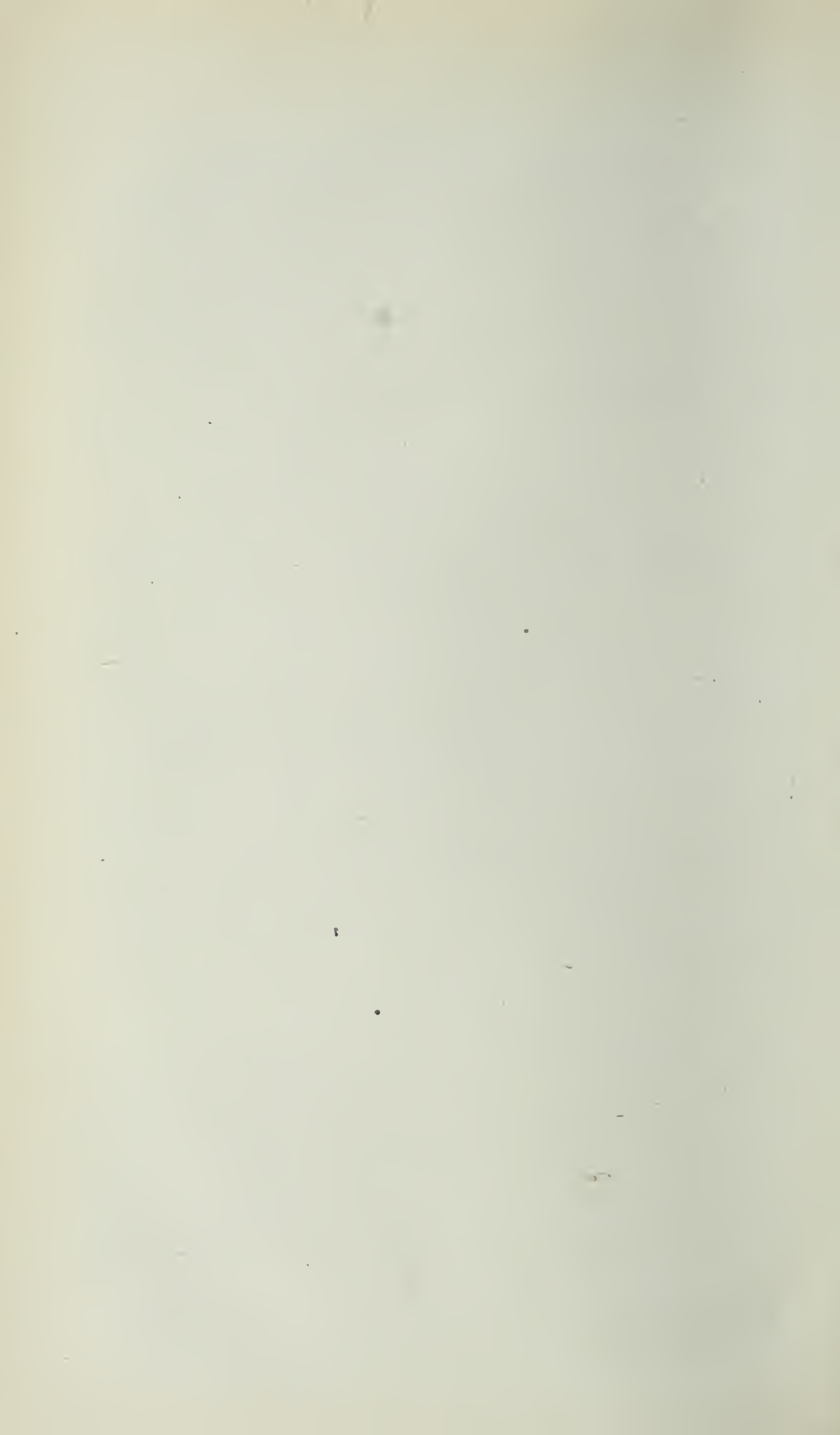
Form of insanity of forty-three cases, deaths.

	Men.	Women.	Total.
Acute mania.....	6	5	11
Melancholia	5	4	9
Chronic mania	2	.	2
Dementia	4	4	8
Paresis	6	4	10
Not insane . . . . .	..	1	1
Puerperal mania . . . . .	..	1	1
Paroxysmal mania.....	1	..	1
Total	<u>24</u>	<u>19</u>	<u>43</u>

TABLE No. 21.

Conditions associated with thirteen cases of paresis admitted during the year.

	Men.	Women.	Total.
Syphilis	2	..	2
Intemperance and syphilis	4	1	5
Sunstroke	2	..	2
Intemperance	2	..	2
Uncomplicated . . . . .	..	2	2
Total	<u>10</u>	<u>3</u>	<u>13</u>



APPENDIX.

Law and forms relating to the admission of patients in the Buffalo State Asylum for the Insane.

The managers of the asylum desire to call the attention of county officials, physicians and others interested in the care of the insane, to the fact that the institution is now prepared to properly care for such patients as may be intrusted to its charge.

The law contemplates that recent cases of insanity, of the public class, should be sent at once to some State asylum especially devoted to the treatment of the acute forms of the disease. This provision is founded upon the well-established value of the early treatment of insanity, the importance of which should not be overlooked by those upon whom the law, or ties of relationship, place the responsibility of the care of this helpless class.

Legal provisions.

The law relating to the commitment of insane is chapter 446, Laws of 1874, from which we make the following extracts :

SECTION 1. No person shall be committed to or confined as a patient in any asylum, public or private, or in any institution, home or retreat for the care and treatment of the insane, except upon the certificate of two physicians, under oath, setting forth the insanity of such person. But no person shall be held in confinement in any such asylum for more than five days, unless within that time such certificate be approved by a judge or justice of a court of record of the county or district in which the alleged lunatic resides, and said judge or justice may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving of such certificate, and said judge or justice may, in his discretion, call a jury in each case to determine the question of lunacy.

§ 2. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of securing his commitment to an asylum, unless said physician be of reputable character, a graduate of some incorporated medical college, a permanent resident of the State, and shall have been in the actual practice of his profession for at least three years, and such qualifications shall be certified to by a judge of any court of record. No certificate of insanity shall be made except after a personal examination of the party alleged to be insane and according to forms prescribed by the State Commissioner in Lunacy, and every such certificate shall bear date of not more than ten days prior to such commitment.

§ 3. It shall not be lawful for any physician to certify to the in-

sanity of any person for the purpose of committing him to an asylum of which the said physician is either the superintendent, proprietor, an officer or a regular professional attendant therein.

TITLE 3. § 37. The terms "lunacy," "lunatic," and "insane," as used in this act, shall include every species of insanity, and extend to every deranged person and to all of unsound mind, other than idiots.

It will be seen, from the above sections, that the requirements of the law for the commitment of an insane patient to an asylum are:

1. The certificate of two physicians, under oath, setting forth the insanity of such person, as defined in the section last cited.

2. The physicians signing the certificates must be duly qualified as medical examiners in lunacy, and be certified by a judge of a court of record, to possess the qualifications specified in the first paragraph of the second section. The certificates must be made on personal examination of the patient, and in accordance with the forms prescribed by the State Commissioner in Lunacy, and bear date not more than ten days prior to the commitment.

3. The certificate must be approved by a judge or justice of a court of record of the county or district in which the patient resides, before or within five days after the patient is committed, in order to authorize his confinement more than five days.

§ 9. The following is the form of medical certificate prescribed by the Commissioner in Lunacy:

(FORM OF MEDICAL CERTIFICATE.)

STATE OF NEW YORK, }
County of , } ss.:

I, , a resident of , in the county aforesaid, being a graduate of , and having practiced years as a physician, hereby certify, under oath, that on the day of I personally examined of *

*(Here insert sex, age, married or single, and occupation.)

and that the said is insane, and a proper person for care and treatment, according to the provisions of chapter 446 of the Laws of 1874.

I further certify that I have formed this opinion upon the following grounds, viz.: *

*(Here insert facts upon which such opinion rests.)

And I further declare that I possess the qualifications specified in section 2 of title 1 of chapter 446 of the Laws of 1874, and that my qualifications as a medical examiner in lunacy have been duly attested and certified by *

*(Here insert the name of the judge granting such certificate.)

Sworn to and subscribed before {
me, this day of , 188 , }

The judge's certificate of qualification, the form of which we give below, need not be attached to the medical certificate, as the physician makes oath to the fact of being qualified, in each instance. It may be retained by the physician or placed on file in the county clerk's office.

(JUDGE'S CERTIFICATE OF QUALIFICATION.)

STATE OF NEW YORK, }
 County of , } ss.:

I hereby certify that , of , is personally known to me as a reputable physician, and is possessed of the qualifications required by chapter 446 of the Laws of 1874.

These are the legal provisions for committing patients to the asylum, so far as the question of their lunacy, and propriety of their care and treatment in such an institution, is concerned.

As regards maintenance patients are of two classes, *public* and *private*. *Public patients* are either pauper or indigent. The former are sent to the asylum upon an order of commitment signed by a majority of the superintendents of the poor of the county in which they reside. Indigent patients are admitted upon a certificate of indigence, made by the county or special county judge, judge of a superior court or common pleas of the county where they reside. The statute, limiting a certificate of indigence to cases of insanity of only one year's duration, has been removed by a recent act (chapter 164, Laws of 1880).

"The object of this humane provision is undoubtedly to extend the benefits of this institution to persons of limited means, whose insanity is of a recent date, and, therefore, probably curable, and, if recovered, to restore them to their families and their property unimpaired, and save them from the paralyzing influence upon their future life of finding themselves, by the loss of health and reason, reduced to poverty. Patients sent through this channel generally supply their own clothing, and pay their own traveling expenses to and from the asylum."

Private patients, or those supported at their own expense, or that of their friends, are received (in accordance with section 22 of title 3 of the law) when there are vacancies in the asylum, giving preference to recent cases, upon the certificates of lunacy made and approved as before described.

To provide for their support, a bond is to be made, signed by two sureties, whose financial responsibility is certified by affidavit, and by a third responsible person.

COPY OF BOND.

WHEREAS, of in the county of , an insane person, has been admitted as a patient into The Buffalo State Asylum for the Insane, in consideration of the following agreement:

Now, therefore, we, the undersigned, in consideration thereof jointly and severally bind ourselves to Elias S. Hawley, treasurer of said asylum, to pay to him and his successors in office the sum of
 dollars cents per week, for the care and board of said insane person, so long as he shall continue in said asylum, with such extra charges as may be occasioned by his requiring more than ordinary care and attention, and also to provide him with suitable clothing, and pay for all such necessary articles of clothing as shall be procured for him by the officers of the asylum, and to remove him from the asylum whenever the room occupied by him shall be required for a class of patients having preference by law, or whenever he shall be required to be removed by the managers or superintendent; and also to pay all expenses incurred by the managers or superintendent in sending such patient to his friends in case one or either of us shall fail to remove said patient when required to do so, as aforesaid; and if he shall be removed at the request of his friends before the expiration of six calendar months after reception, then so to pay board for twenty-six weeks, unless he shall be sooner cured, and also to pay, not exceeding fifty dollars, for all damages he may do to the furniture or other property of said asylum, and for reasonable charges in case of elopement, and funeral charges in case of death; such payments for board and clothing to be made quarterly, and ratable on the first days of January, April, July and October in each year, and at the time of removal, with interest on each bill from and after the time it becomes due.

In witness whereof, we have hereunto set our names this
 day of , in the year 18

(Name.)

(P. O. Address.)

(Name.)

(P. O. Address.)

STATE OF NEW YORK, } ss. :
 County, }

 , being duly sworn, deposes and says that he is worth the sum of one thousand dollars over and above all his debts and liabilities, exclusive of property exempt from execution.

Subscribed and sworn this }
 day of , 18 , before me. }

STATE OF NEW YORK, } ss. :
 County, }

 , being duly sworn, deposes and says that he is worth the sum of one thousand dollars over and above all debts and liabilities, exclusive of property exempt from execution.

Subscribed and sworn, this }
 day of , 18 , before me. }

This will certify that I am personally acquainted with
and _____, the signers of the above bond, and consider each of
them fully responsible for the prompt discharge of its obligation.

(Name.)

(P. O. Address.)

“This agreement, or understanding, is generally signed by near relatives or other friends of the patient, or legal guardians, if any such there be, at or prior to the time of admission, or subsequently, upon the deposit of a sum of money sufficient to secure its execution.”

Clothing required by patients.

“All persons require at least two suits of clothing, and several changes of under garments. Most of the patients go out regularly, and consequently require clothing suited to the season. For males overcoats and boots are required in winter; shoes answer in summer; slippers are worn in the house. Females also need ample clothing for walking and riding in the winter.

“The supply should be liberal when it can be afforded. All clothing is marked with the name of the patient to whom it belongs, and much pains are taken to have it kept in good order and repair.”

Removal of a patient to the asylum.

“In conveying a patient to the asylum, let it be done, if necessary, by force rather than by deception. Truth should not be compromised by planning a journey, or a visit to the asylum, and when there, suggesting the idea to the patient of staying, while his admission was already decided upon; nor should patients be induced to come and stay a few days to see how they like it, under the impression that they can leave at pleasure. Such treachery not only destroys confidence in friends, but also, too often, in us, by the seeming conspiracy to which we are supposed to be a party, than which there can scarcely be a greater barrier to improvement.”

History of the case to be furnished.

“The patient should be brought by an intelligent and intimate acquaintance, who will be able to give a minute history of the case, or a written account should be transmitted. In the latter should be stated the name, age, married or single, number of children, occupation, degree of education, profession of religion, habits, nativity, residence, predisposing and exciting causes. Give a minute history of the patient from youth up, temperament, peculiarities, disposition, etc.; also the cause supposed to have affected the patient immediately preceding the attack; state what relatives, near or remote, are or have been insane or peculiar; also what disease the patient has suffered from, fits, skin diseases, dyspepsia, constipation, piles, ulcers, etc. Give the date of the attack, going back to the

first noticeable disturbance, no matter how slight, also the duration of the more marked and decided symptoms, the number of attacks (if this be not the first) and, if ever before admitted, the number of admissions to this asylum, and how complete was the recovery in the interval of the attacks ; state fully the condition of the patient at the time of admission, whether suicidal or homicidal ; whether he eats, sleeps, strikes, breaks, destroys, or is noisy or inattentive to personal cleanliness, and whatever else that may occur to the friends, likely to be useful to us."

Any of the above-named forms, viz. : *medical certificates, orders of superintendent of poor, certificates of indigence, or bonds, for private patients* in blank will be furnished upon application to the *Superintendent of the Asylum, Dr. J. B. ANDREWS, Buffalo State Asylum, Buffalo, N. Y.*, to whom all correspondence with or about patients is to be directed.

SIXTY-SIXTH ANNUAL REPORT

AND

DOCUMENTS

OF THE

New York Institution

FOR THE

Instruction of the Deaf and Dumb,

TO THE

LEGISLATURE OF THE STATE OF NEW YORK,

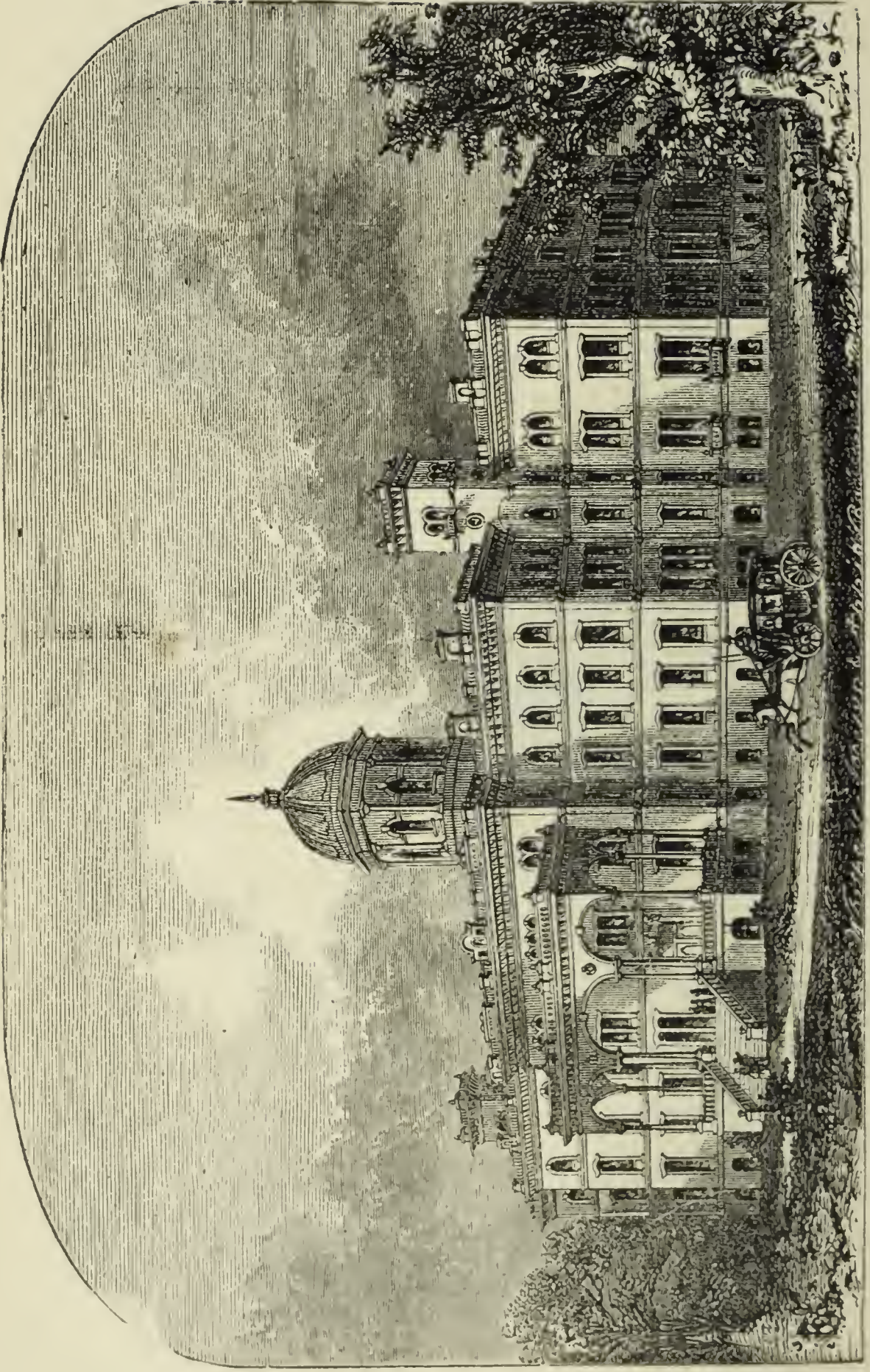
For the Year 1884.



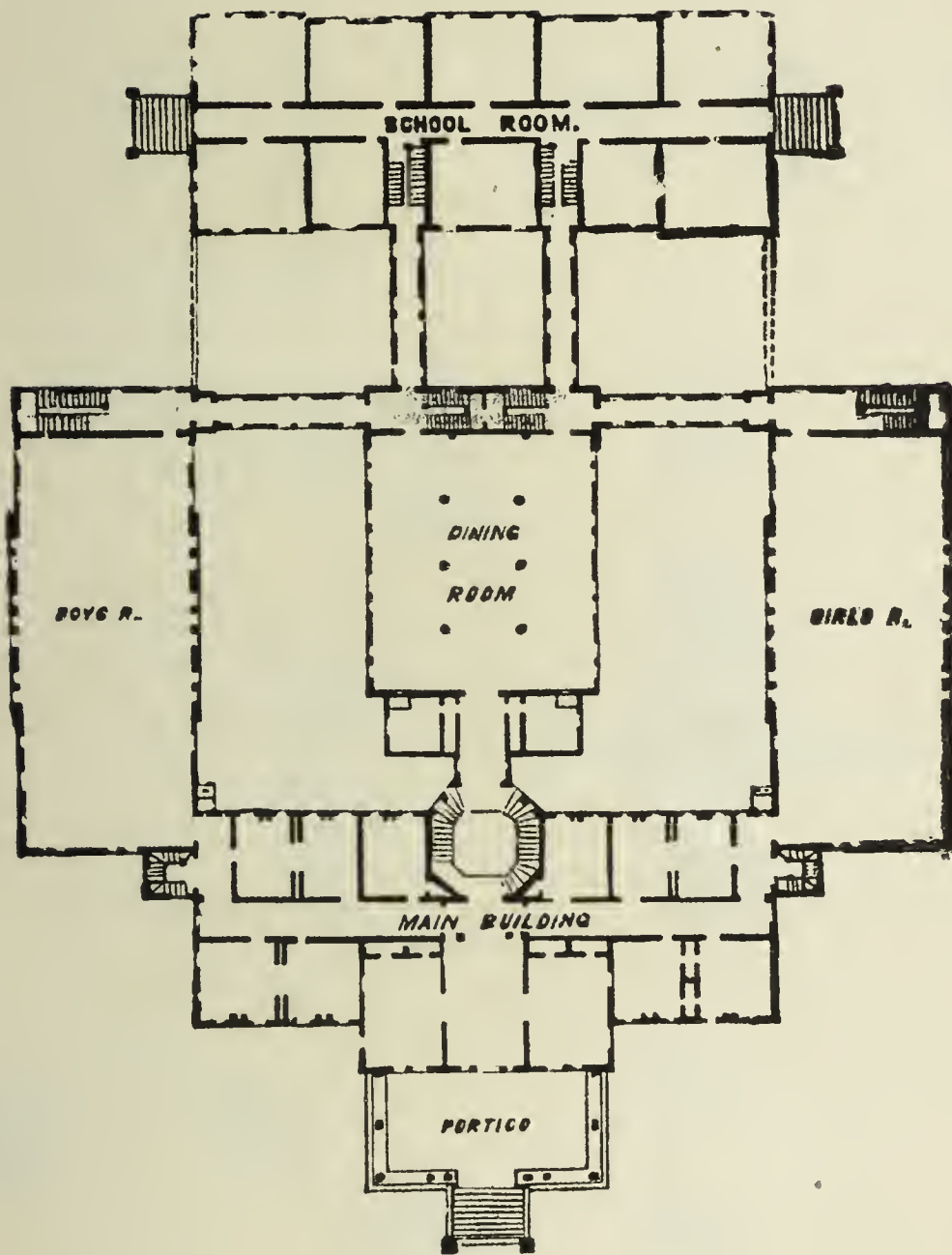
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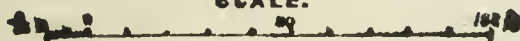
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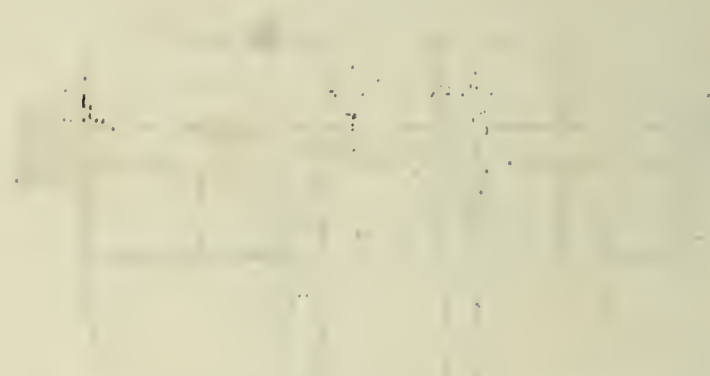


INSTITUTION FOR THE DEAF AND DUMB.



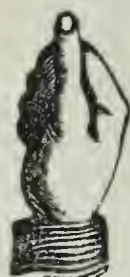
PRINCIPAL FLOOR.
SCALE.





ALPHABET OF THE DEAF AND DUMB.

A a



B b



C c



D d



E e



F f



G g



H h



I i



J j



K k



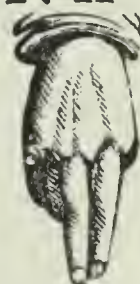
L l



M m



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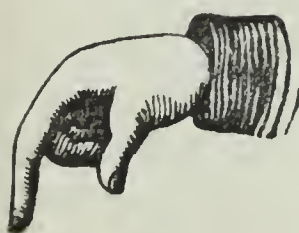
O o



P p



Q q



R r



S s



T t



U u



V v



W w



X x



Y y



Z z



&



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HANNAH BARRY.

STATE OF NEW YORK.

No. 22.

IN ASSEMBLY,

January 15, 1885.

SIXTY-SIXTH ANNUAL REPORT

OF THE

NEW YORK INSTITUTION FOR THE INSTRUCTION OF
THE DEAF AND DUMB.

STATE OF NEW YORK :

DEPARTMENT OF PUBLIC INSTRUCTION,

SUPERINTENDENT'S OFFICE,

ALBANY, *January 15, 1885.* }

HON. GEORGE Z. ERWIN,

Speaker of the Assembly :

SIR :—I have the honor to transmit, herewith, the Sixty-Sixth Annual Report of the New York Institution for the Instruction of the Deaf and Dumb.

Very respectfully,

Your obedient servant,

WILLIAM B. RUGGLES,

State Superintendent.

SIXTY-SIXTH ANNUAL REPORT.

The Directors of the New York Institution for the Instruction of the Deaf and Dumb respectfully present their Sixty-Sixth Annual Report to the Legislature.

The first thought suggested to the Board of Directors is the grateful remembrance to the people of the State through the Legislature for the constant and bountiful provision made for the education and support of the Deaf and Dumb in all parts of the commonwealth. Generally this support comes in the form of State taxation, and only in a limited form is it a direct tax upon the people of the several counties from whence pupils are sent, or may be sent, between the ages of six and twelve years, the State paying for the support of all between the ages of twelve and twenty years. The seven Institutions in the State, of which the New York Institution, represented by us, is the parent of all, open wide their doors to welcome every unfortunate of this class of persons, and they are found in every part of the Commonwealth. All that the State asks is a *bona fide* State residence of three years and minds capable of development.

There is ample room for all, complete support for all, free education, rooms, books and equipment for all, clothing for all in established State Institutions, and for this the Board of Directors tender their thanks to the Executive of the State and the Representatives of the people in the laws now passed, approved and enforced.

In this, the parent Institution, our conviction is that the system of instruction is as complete as in any part of the world. For many years it has embraced the dual methods of teaching by the voice and in the sign language. What there is best in both systems has been and is recommended and adopted with capable instructors in each department, and with this double form of instruction imparted to the same pupils

whenever the dual methods are practicable and desirable. But where the lips can be used to read human conversation or the voice used to give expression by words and sentences, it is observable that the young pupils and those of a mature age resort often, in preference, to the sign-language for inter-communication.

The trials which have been made, however, demonstrate in the school of experience the capacity of most of the pupils to be taught and to learn in both systems.

The sense of feeling is as keen in the deaf and dumb as in those who speak and hear. They can feel a drum beat and keep step to its music, as well as the thunder in the Heavens or the trembling of the earth. What can be done and what is accomplished in teaching the deaf to hear, the dumb to speak, the blind to see, through the sense of feeling, is a part of the work performed in the New York Institution, where there have been for several years pupils triply afflicted in these three misfortunes. In the mysteries of Providence, shown in the works of God to man, we feel, with the examples before us, that nothing tending to complete human development and to effect the melioration of mankind is impossible.

The report of the Principal of the Educational Department, will show in detail the progress made during the year past in the education of all ages and classes of pupils in the two methods of instruction.

A like report will show the work of what is known as the department of administration. This service is directed by a chief officer serving both as Superintendent and Physician. Under it and advising it in the medical service are two consulting physicians who are members of the Board. There are also the Steward, the male and female Supervisors of each department, the Matron, and those employed in the varied and necessary industries of the Institution. Herein, apart from the corps of teachers, is the chief expense of the Institution, and the reports which follow will show the full work of the fiscal year ending September 30th. The Executive Committee have the direction of this department of service subject to the approval of the full Board, and this full approval upon reports made by committees is the uniform practice in the government of the Institution. The Mechanical and Industrial departments of the Institution, it will be seen, show reasonable progress, but in these departments, as in all conditions of human life and work, there is always room for improvement.

Nothing in the history of Education at home and abroad has been more marked or more eventful in results than the instruction of the deaf and dumb. The advance has been from the densest ignorance, dependence and seeming hopelessness of improvement, to those developments in mind and culture which have changed an age and life of

despair to one of almost the highest intellectual attainment, and in very many examples, of complete self-support and personal independence.

During the present year, the Board of Directors have given more attention than ever before to the department of drawing and painting, and the experiment, as far as tried, meets their best expectations. In each of these departments may be found means of self-support, and where there is natural taste and talent for this work, success is well assured. Many of the pupils show entire devotion to these studies, but only so much time is given to works of art as is not inconsistent with proper attention to the essential branches of learning. Where there is a real taste for this kind of cultivation, the progress made is rapid and satisfactory.

The new department, we believe, will enable us to confer practical benefit upon very many of our pupils. All of them will be taught drawing from nature, and special talent will receive technical and practical training in the various branches of decorative art.

The success already attained, is in the highest degree encouraging, and the reputation of Madame Le Prince, the managing professor, who, with her husband, was at the head of one of the most successful art schools of the day, at Leeds, England, gives promise of advanced work. It is expected that these new facilities, so far from increasing the expense of instruction, will diminish it, as it will not be long before our pupils will be able to fill orders that will bring a direct pecuniary return.

The health of the pupils during the year has been uncommonly good, with very little sickness and no death. During the year, Dr. F. C. Riley, the Ophthalmic and Aural Surgeon of the Institution, has performed two operations, one of them a case of iridectomy, or the making of an artificial pupil, the original pupil having been obliterated by disease in the patient before operated upon. The second case was the re-establishment of a tear passage which was occluded, causing the patient great annoyance by the constant flow of tears. The pupils of this Institution are, as a rule, reported as remarkably free from ocular disease of a contagious nature.

The number of pupils under instruction within the year, from October 1, 1883, to October 1, 1884, was 419—to wit: males 270, and females 149. The number of pupils on the school rolls from September 1, 1883, to September 1, 1884, was 399, which also represents the highest number at any one time.

The number of teachers assisting the Principal within the year was 19, of whom 4 have retired, leaving in active service 15. Of these, 2 are devoted to the Department of Art. Ten teach 2 classes each per

day, doing the work of 20 teachers by laboring twice the usual number of hours, and thus enabling 13 to teach 23 classes.

Of the 15 teachers, 7 are males and 8 females. The girls are all taught by persons of their own sex, and in no case are they taught in a class with boys.

The Board, in its full list of twenty-four members, has to record the death, in March, 1884, of WILLIAM H. FOGG, for four years in the service of the Board, and one of its most charitable and valuable members. A proper record of his death will be found in the minutes of March 13th.

NEW YORK, *December*, 1884.

ERASTUS BROOKS,
President.

THATCHER M. ADAMS,
Secretary.

TREASURER'S ACCOUNT

FOR

THE YEAR ENDING SEPTEMBER 30, 1884.

EXPENDITURES.

Groceries and Provisions.

Apples, 6 barrels.....	\$20 80
Baking powder, soda, etc.....	57 65
Beans, 6 barrels.....	65 74
Berries, 694 quarts.....	82 21
Buckwheat meal, 252 pounds.....	9 88
Butcher's meat, 118,361 pounds.....	10,074 15
Butter, 14,973 pounds.....	3,550 96
Canned goods.....	136 30
Cartage and freight.....	567 60
Cheese, 622 pounds.....	90 84
Cider and vinegar, 6 barrels.....	54 30
Chocolate, 36 pounds.....	12 36
Coffee, 3,189 pounds.....	441 69
Codfish (boneless), 1,175 pounds.....	100 07
Corn-starch and tapioca, 120 pounds.....	12 67
Cranberries, 2 barrels.....	13 50
Crackers, 1,009 pounds.....	97 05
Dried Fruits, 1,438 pounds.....	136 27
Eggs, 1,310 dozen.....	331 80
Flavoring extracts.....	38 03
Flour, 533 barrels.....	3,316 28
Fresh fish.....	617 78
Gelatine and ginger.....	16 95
Grapes.....	11 33
Hominy, 18 barrels.....	84 00
Hops, malt and yeast.....	47 95
Horse Radish, 10 dozen.....	10 00
Carried forward.....	\$19,998 16

Brought forward.....	\$19,998 16	
Ice, 124,780 pounds.....	255 20	
Indian meal, 4 bags.....	7 76	
Lard, 1,382 pounds.....	141 33	
Lemons and oranges, 7 boxes.....	29 24	
Macaroni, 50 pounds.....	5 63	
Mackerel, 8½ barrels.....	135 55	
Maple syrup and sugar.....	20 33	
Milk, 77,618 quarts.....	4,268 96	
Molasses and syrups, 1,103 gallons.....	340 11	
Mustard, 152 pounds.....	48 36	
Oatmeal, 14 barrels.....	95 50	
Pears and plums.....	14 46	
Peaches, 33 baskets.....	40 90	
Pepper, 102 pounds.....	21 70	
Pickles.....	30 35	
Pork (salt), 2½ barrels.....	45 50	
Potatoes, 427 barrels.....	697 05	
Potatoes (sweet), 13 barrels.....	40 60	
Poultry, 912 pounds.....	148 86	
Raisins, 11 boxes.....	28 00	
Rice, 4,385 pounds.....	303 26	
Salt, 21 sacks.....	31 78	
Sardines, 325 boxes.....	93 62	
Smoked meats, 7,515 pounds.....	870 91	
Smoked fish, 38 pounds.....	7 08	
Spices.....	11 41	
Sugar, 16,593 pounds.....	1,241 79	
Sweet oil, 1 case.....	7 50	
Tea, 983 pounds.....	287 98	
Vegetables.....	29 92	
		<hr/>
		29,298 80

Clothing.

Bathing sponges and brushes.....	26 00	
Braid, binding and trimming.....	16 78	
Buttons.....	20 96	
Cambric, 531 yards.....	28 07	
Camphor and larkspur seed.....	5 20	
Cartage and freight.....	42 25	
Cash advanced pupils.....	358 59	
		<hr/>
Carried forward.....	\$497 85	\$29,298 80

Brought forward.....	\$497 85	\$29,298 80
Cheviot, 48 yards.....	4 47	
Check, 270 yards.....	27 74	
Coats, 17.....	66 00	
Cloaks, 9.....	27 10	
Cord, elastic and webbing.....	11 99	
Collars (linen), 14 dozen.....	12 60	
Collars (paper), 13,500.....	138 55	
Combs, 20½ dozen.....	21 61	
Corsets, 4½ dozen.....	27 94	
Denims, 100 yards.....	14 00	
Diaper, 17 pieces.....	17 00	
Drawers, 16½ dozen.....	80 63	
Dress goods, 492 yards.....	82 27	
Dress linings, 275 yards.....	31 99	
Flannel, 58 yards.....	12 27	
Gingham, 2,269 yards.....	205 67	
Hair cutting.....	26 31	
Hair, nail and tooth brushes, 11 dozen.....	13 00	
Hats and caps, 43 dozen.....	173 63	
Handkerchiefs, 42 dozen.....	32 78	
Hoods, 1 dozen.....	3 50	
Hose and half hose, 78½ dozen.....	165 50	
Jean, 148 yards.....	11 83	
Knitting cotton and yarn, 29 pounds.....	15 48	
Linen thread, 19 pounds.....	15 20	
Mittens, 7½ dozen.....	16 00	
Neckties, 38 dozen.....	44 25	
Overalls and jumpers, 3½ dozen.....	20 50	
Pants, 5 pair.....	18 50	
Pins and needles.....	35 85	
Ribbons.....	30 30	
Rubber overshoes, 42 pairs.....	16 34	
Scissors and grinding... ..	17 00	
Sewing machine needles and repairs.....	15 22	
Sewing silk and twist.....	12 02	
Skirts, 1 dozen.....	9 00	
Shirting, 2,961 yards.....	261 68	
Shoe blacking and brushes.....	35 50	
Spool cotton, 151 dozen.....	82 07	
Suiting, 552 yards.....	69 00	
Suits boys' clothing, 54.....	488 25	
Carried forward.....	\$2,908 39	\$29,298 80

Brought forward.....	\$2,908 39	\$29,298 80
Suspenders, 19 dozen.....	35 29	
Thimbles, 2 gross.....	3 17	
Trunks, bags and repairs.....	4 35	
Undershirts and undervests, 23 dozen.....	134 50	
Vests, 8 dozen.....	60 00	
Wages of Seamstresses.....	993 50	

Shoe Shop.

Leather and findings.....	2,126 48	
Wages of Shoemaker	900 00	
Cartage.....	15 00	
Rye flour for paste.....	1 75	
	<hr/>	3,043 23

Tailor Shop.

Cassimere, 1,547 yards.....	1,197 98	
Linings and trimmings.....	1,140 02	
Wages of tailor and tailoresses..	927 00	
Cartage.....	12 00	
	<hr/>	3,277 00
	<hr/>	10,459 43

Furniture.

Ash can.....	2 50	
Baskets and repairs.....	41 10	
Bath brick and silicon.....	7 10	
Britannia pitchers, 2 dozen.....	44 00	
Brooms, 26 dozen.....	97 25	
Brushes, 25½ dozen.....	91 25	
Carpeting, 164½ yards.....	207 98	
Cartage.....	136 00	
Clocks and repairing.....	20 00	
Clothes-lines and pins.....	3 00	
Coal hods, 6.....	3 40	
Cotton batting.....	2 52	
Crash, 643 yards.....	66 22	
Crockery and glass-ware.....	111 92	
Damask, 22½ yards.....	15 87	
Feather dusters, 7	7 50	
Hand truck.....	4 50	
Iron bedstead repairs.....	1 50	
Knives and forks.....	6 87	
	<hr/>	
Carried forward.....	\$870 48	\$39,758 23

Brought forward...	\$870 48	\$39,758 23
Linen thread.....	4 07	
Looking glasses, 2 dozen.....	10 35	
Mats, 3.....	6 75	
Matting, 215 yards.....	140 78	
Mattresses made and re-made, 428.....	263 00	
Mops and handles, 8½ dozen.....	24 00	
Napkins and doyles, 3½ dozen.....	6 31	
Pails, 3 dozen.....	9 00	
Repairing furniture.....	23 76	
Repairing tin and copperware.....	114 08	
Replating table ware.....	55 55	
Rubber sheeting, 59½ yards.....	32 13	
Russia Iron meat-pans, 8.....	18 00	
Sheeting, 1,708 yards.....	260 64	
Small kitchen wares.....	6 16	
Stove repairs, pipe, polish, etc.....	80 50	
Straw, 14,145 pounds.....	154 70	
Table covers.....	57 15	
Tin ware.....	107 19	
Towels, 13 dozen.....	37 83	
Toweling, 446 yards.....	69 57	
Tuning piano.....	2 00	
Whisk brooms, 4 dozen.....	11 25	
Window shades and repairing.....	68 74	
Wooden ware.....	8 70	
Wages of Seamstresses.....	517 27	
	<hr/>	2,959 ⁷ / ₁₆

Building and Repairs.

Painting and glazing.....	886 65	
Lumber.....	855 81	
Mason work and material.....	841 70	
Labor.....	425 25	
Repairing roofs, gutters and leaders.....	413 98	
Pipe and fittings.....	306 61	
Hardware and tools.....	254 58	
Kalsomining and whitewashing.....	249 85	
Road gravel and cartage of same (50 tons)..<	125 00	
Steam boiler feeder.....	120 00	
Cartage.....	85 70	
Repairing ranges.....	69 39	
	<hr/>	
Carried forward.....	\$4,634 52	\$42,718 19

Brought forward.....	\$4,634 52	\$42,718 19
Iron and blacksmithing.....	63 11	
Repairing sinks.....	48 55	
Plumbing.....	41 78	
Repairing ventilators.....	35 74	
Cleaning vaults.....	30 00	
Repairing steam engine.....	29 41	
Repairing ice box.....	26 04	
Repairing elevator.....	24 47	
Fence wire.....	8 75	
Repairing furnace.....	7 75	
Drainage.....	5 21	
Weather strips.....	4 90	
Felting.....	3 50	
Wire cloth.....	1 87	
Wages of carpenters.....	1,679 79	
	<hr/>	6,645 39

Fuel and Lights.

Anthracite coal, 1,234 tons.....	5,028 65	
Gas, 1,134,300 feet.....	2,552 13	
Hoisting, shoveling and carting coal.....	935 10	
Charcoal, 270 barrels.....	175 50	
Sperm oil, 16 gallons.....	22 55	
Matches, 11 gross.....	18 00	
Coal barrows.....	14 00	
Coal shovels, 10.....	7 64	
Kerosene oil and wicking.....	4 90	
Hose coupling, etc.....	4 65	
Candles.....	3 00	
Wages of engineer and firemen.....	1,665 00	
	<hr/>	10,431 12

Printing.

Paper and cards.....	312 96	
Folding and binding.....	57 18	
Cartage.....	49 30	
Type and furniture.....	25 00	
Re-covering rollers.....	24 50	
Sperm oil, 4½ gallons.....	8 88	
Traveling expenses.....	8 75	
Ink.....	8 50	
Postage.....	6 00	
	<hr/>	

Carried forward.....	\$501 07	\$59,794 70
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Brought forward.....	\$501 07	\$59,794 70
Repairing press.....	2 25	
Benzine.....	21 40	
Wages of printers.....	1,502 63	
	<hr/>	2,027 35

Stable.

Oats, 187 bags.....	233 40	
Ground feed, 117 bags.....	158 66	
Horse shoeing.....	108 75	
Hay, 12,015 pounds.....	101 97	
Repairing wagons.....	99 50	
Repairing harness, and 1 new set.....	74 35	
Lap robes, blankets and tools.....	37 02	
Cartage.....	7 86	
Hose and couplings.....	6 30	
Oil meal.....	3 25	
Wages of stableman.....	300 00	
	<hr/>	1,131 06

Washing.

Hard soap, 14,052 lbs.....	857 35	
Starch, 1,720 lbs.....	92 80	
Sal soda, 3,250 lbs.....	48 72	
Sapolio, 11 boxes.....	48 00	
Cartage.....	24 60	
Blueing, 10 cases.....	19 00	
Castile soap, 67 lbs.....	8 94	
Javelle water, 8 gallons.....	6 00	
Wages of laundresses.....	1,735 52	
	<hr/>	2,840 93

Farm and Garden.

Manure, 97 loads.....	121 25	
Tools and repairs.....	91 36	
Seeds, etc.....	45 71	
Cartage and freight.....	11 96	
Potato bags.....	6 35	
Land plaster.....	3 90	
Wages of farmer and gardeners.....	1,215 00	
	<hr/>	\$1,495 53
Carried forward.....		\$67,289 57

Brought forward.....	\$67,289 57
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Hospital.

Medicines and supplies.....	359 42	
Wages of nurse.....	240 00	
	<hr/>	599 42

Schools.

Books, slates and stationery.....	903 54	
Postage stamps.....	125 00	
Initiatory expenses of the School of Industrial and Technical Art.....	80 11	
Prizes.....	69 37	
Type writer and Repairs.....	58 00	
Supplies for Stereopticon.....	40 68	
Cartage.....	37 25	
Philosophical Instruments.....	7 49	
Ribbon for Diplomas.....	5 10	
Salaries of Principal and Instructors.....	21,921 42	
	<hr/>	23,247 96

Salaries of Superintendent, Steward and assistants.....	5,815 04
Salaries of matrons.....	1,124 04
Salaries of supervisors.....	1,708 91
Wages of housekeeper, baker and cooks..	2,007 52
Wages of waiters, chambermaids and laborers.....	6,341 96
Traveling expenses.....	237 48
Subscription to American Annals of the Deaf and Dumb.	194 00
Blank books and stationery.....	185 02
Postage and revenue stamps.....	175 54
Wrapping paper and twine.....	76 69
Tissue manilla.....	66 50
Delegation to Convention of State Charities, Louisville, Ky.....	50 00
Expense of pupils to American Institute Fair.....	45 35
Cartage and Expressage.....	34 64
Advertising.....	26 65
Alcohol.....	20 48
Newspaper Subscriptions.....	20 46
Maintenance of Fire Alarm.....	20 00
Entertainment for Pupils.....	15 00
Repairing time detector.....	8 00

Carried forward.....	\$109,310 23
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Brought forward.....	\$109,310 23
Telegrams.....	5 94
Insect powder.....	5 03
Bust of Laura Bridgman.....	5 00
Drum heads and sticks.....	4 44
State Manual.....	2 21
	<hr/>
	\$109,332 85
	<hr/>

RECEIPTS.

From Comptroller of the State, for State Pupils—Board and Tuition.....	\$75,973 48
From Paying Pupils, for Board and Tuition.....	1,292 17

From—	Clothing State pupils.	Support of County pupils.	Total.	
Albany County..	480 67	1,265 00	1,745 67	
Allegany “ ..	60 00		60 00	
Broome “ ..	30 00		30 00	
Chautauqua “ ..	110 42	48 17	158 59	
Chenango “ ..	30 00		30 00	
Clinton “ ..	30 00		30 00	
Columbia “ ..	60 00	600 00	660 00	
Delaware “ ..	30 00	295 00	325 00	
Dutchess “ ..	152 25	570 83	723 08	
Erie “ ..	18 83		18 83	
Essex “ ..	30 00	300 00	330 00	
Jefferson “ ..	30 00		30 00	
Kings “ ..	903 44	5,019 61	5,923 05	
Lewis “ ..	30 00		30 00	
Livingston “ ..	30 00		30 00	
Monroe “ ..	30 00		30 00	
New York “ ..	4,366 29	8,814 51	13,180 80	
Niagara “ ..	24 25		24 25	
Oneida “ ..	30 00		30 00	
Ontario County..	19 33		19 33	
Orange “ ..	427 49	1,063 33	1,490 82	
Oswego “ ..	30 00		30 00	
Putnam “ ..	30 00		30 00	
Queens “ ..	176 25	600 00	776 25	
Rensselaer “ ..	100 25	300 00	400 25	
Richmond “ ..	120 00		120 00	
Rockland “ ..	120 00		120 00	
Saratoga “ ..		300 00	300 00	
Schoharie “ ..	116 75		116 75	
Steuben “ ..	30 00		30 00	
Carried forward,	\$7,646 22	\$19,176 45	\$26,822 67	\$77,265 65

	Clothing State pupils.	Support of County pupils.	Total.	
Brought forward, \$7,646 22	\$19,176 45	\$26,822 67	\$77,265 65	
Suffolk " ..	90 00		90 00	
Sullivan " ..	180 00	498 33	678 33	
Tioga " ..	10 00		10 00	
Ulster " ..	251 16	182 50	433 66	
Warren " ..	30 00	274 17	304 17	
Washington " ..	54 50	296 67	351 17	
Westchester " ..	328 33	285 00	613 33	
Wyoming " ..	60 00		60 00	
	<hr/>	<hr/>		
	\$8,650 21	\$20,713 12		29,363 33
From printing.....				1,315 55
From sales of grease and refuse.....				227 85
From discount on audited bills.....				91 58
From sales, live stock.....				77 50
From sales, dry goods.....				64 20
From sales, rags and old paper.....				49 58
From sales, empty barrels.....				40 80
From sales, shoe shop account.....				26 15
From keep of horse.....				17 10
From sales, carpenter shop account.....				13 00
From sales, old iron.....				10 80
From sales, wood.....				8 00
From sales, groceries.....				7 29
From medicines.....				1 50
From real estate fund to make good deficit for the year..				752 97
				<hr/>
				\$109,332 85

MEMORANDA:

The following statements are of accounts reserved for special uses, and not applicable to current expenses, etc., being derived from Legacies and sales of Real Estate. The Real Estate Fund was set aside to meet assessments and building expenses. The Library Fund was set apart for maintenance of Library. The Frizzell, Harriet Stoner, and Cary Funds, are reserved for the uses prescribed by the terms of the several bequests. The Building Fund is an amount on hand towards erection of new buildings at Tarrytown (see Chapter 343, Laws of 1877), and consists of legacy of Ephraim Holbrook, and a bond and mortgage of \$2000 taken in payment for Real Estate.

BUILDING FUND.		CR.	
1883.		1884.	
October 1.	To balance from old account.....	September 30.	By balance to new account
	“ interest received		
			\$33,821 36
			995 36
			<u>34,816 72</u>
1884.			
October 1.	To Cash balance from old account.....		
			34,816 72
			<u>34,816 72</u>
DR.		CR.	
REAL ESTATE FUND.			
1883.			
October 1.	To balance from old account.....		
	“ final dividend on account Legacy of Daniel Marley.....		
	“ balance of distributive share of income and interest upon Legacy of Eliza Mott.....		
	“ Donation from George A. Docksta-der, Esq.....		
	“ interest received.....		
			28,269 84
			349 30
			405 54
			25 00
			488 18
			<u>29,537 86</u>
1884.			
October 1.	To balance from old account.....		
			28,784 89
DR.		CR.	
		By amount transferred to General Account to make good deficit for the year ending Sep-tember 30th, 1884.....	
		“ balance to new account.....	
		752 97	
		28,784 89	
		<u>29,537 86</u>	
		MEM.—General Account owes for cash advanced to make good deficits, \$25,854.70.	

[illegible]

CARY FUND.		CR.
DR.		
1883.		
October 1.	To balance from old account.....	\$100 71
	“ interest.....	3 78
		104 49
1884.		
October 1.	To balance from old account.....	104 49
	By balance to new account.....	\$104 49
		104 49

RECAPITULATION.		CR.
DR.		
	Real Estate Fund... ..	19,434 68
	Building Fund... ..	4,365 62
	Library Fund... ..	5,329 52
	Frizzell Fund... ..	1,722 49
	Harriet Stoner Fund... ..	801 31
	Cary Fund... ..	39,000 00
		\$70,653 62
	Cash in United States Trust Co.....	
	“ N. Y. Life Insurance and Trust Co.....	
	“ Inst. for Savings of Merchants Clerks....	
	“ Seaman's Savings Bank... ..	
	“ Merchants' National Bank	
	Bonds and Mortgages... ..	
		\$70,653 62

STATE OF NEW YORK, } ss.
CITY AND COUNTY OF NEW YORK, }

George A. Robbins, of said City, being duly sworn, says that he is the Treasurer of the New York Institution for the Instruction of the Deaf and Dumb, that the foregoing accounts, to the best of the deponent's knowledge and belief, are true and just in every particular, and further saith not.

Sworn before me this 24th }
day of October, 1884. }

ANDREW WARNER,

Notary Public, New York.

[SIGNED.] GEORGE A. ROBBINS,
Treasurer.

Report of the Administrative Department.

The former Superintendent and Physician, Dr. J. C. Carson, having resigned to take charge of the State Asylum for Idiots at Syracuse, before the preparation of the Report, and his successor not having entered upon his duties, no extended report is at present submitted. The following details usually embraced in the Superintendent's report are furnished by the Steward.

MOVEMENT OF THE POPULATION.

	Males.	Females	Total.
Number present September 30, 1883.....	232	115	347
Former pupils re-admittted.....	18	13	31
New pupils admitted.....	20	21	41
Whole number.....	270	149	419
Number who have left during the year	23	6	29
Number connected with the Institution September 30, 1884.....	247	143	390

MEDICAL RECORD.

The health of the Institution has been unusually good.

RECORD OF DISEASES TREATED.	PUPILS.		Officers, teachers and em- ployes.	Total.
	Males.	Females.		
Abscess.....	1	3		4
Amenorrhœa.....		4	6	10
Anæmia.....			3	3
Bronchitis.....	11	17	1	29
Carbuncle.....	1			1
Conjunctivitis.....		2		2
Cholera Morbus.....			1	1
Diarrhœa.....	1			1
Debility.....		1		1
Dacrocystitis.....		1		1
Epilepsy.....		2		2
Eczema.....		1		1
Gastric Derangement.....		1	1	2
Glandular Swelling.....		1		1
Injury.....	16	3	2	21
Intertrigo.....	1	1		2
Ivy Poison.....	1	1	3	5
Jaundice.....	1			1
Lumbago.....			1	1
Malaria.....	4	1	2	7
Mumps.....	10		1	11
Neuralgia.....		1	1	2
Phthisis Pulmonalis.....	1	1		2
Peritonitis.....			1	1
Quinsy.....			1	1
Rheumatism.....	1		2	3
Scarlatina.....	1			1
Tonsilitis.....	4	6	2	12
Typhoid Fever.....	1			1
Ulcer.....		1		1
Urticaria.....	1			1

INDUSTRIAL.

The exhibit of the industrial work in the different departments of practical education is as follows :

PRINTING OFFICE.

(Estimated value of work done for the Institution, and cash receipts.)

For the Educational Department.....	\$32 75
For the Administrative Department.....	152 75
Printing Annual Report... ..	500 00
Custom work (Cash).....	1,315 55
	<hr/>
	\$2,001 05

CARPENTER SHOP.

Estimated value of new work and repairs done for the Institution.....	\$3,127 30
	<hr/>
	\$3,127 30

SHOE SHOP.

Number of pairs of shoes made... ..	609
Cost of 679 pairs of shoes distributed.....	\$1,950 25
Cost of repairing 1,180 pairs of shoes	822 75
Custom work (Cash).....	26 15
	<hr/>
	\$2,799 15

TAILOR SHOP.

Number of coats made.....	137
Number of jackets made.....	205
Number of pairs of pants made.....	476
Number of vests made... ..	108
Number of straw ticks made.....	44
Number of boys' aprons made	90
Cost of 130 coats distributed.	\$664 00
Cost of 202 jackets distributed....	492 25
Cost of 433 pairs of pants distributed... ..	1,269 45
Cost of 109 vests distributed.....	194 00
	<hr/>
	\$2,620 40

FARM AND GARDEN.

(Estimated value of vegetables, fruit, milk, poultry and eggs produced, and used in the Institution.)

Apples, 150 barrels.....	\$225 00	Brought up.....	\$2,919 89
Beans, 77 bushels.....	96 25	Parsley, 695 bunches...	55 60
Beets, 260 bushels... .	195 00	Pears, 16 bushels... ..	16 00
Cabbage, 6,379 heads...	382 74	Peas, 57 bushels.....	57 00
Carrots, 58 bushels.....	58 00	Peppers, 3½ bushels....	3 50
Celery, 150 dozen.....	240 00	Pie plant, 756 bunches.	45 36
Chickens, 38 pairs.....	19 00	Potatoes, 130 barrels...	208 00
Cucumbers, 27 bushels.	20 25	Radishes, 186 bushels..	111 60
Eggs, 250 dozen.....	62 50	Spinach, 144 barrels....	288 00
Egg plant, 83..... .	12 45	Sprouts, 40 barrels.....	50 00
Grapes, 490 pounds....	19 60	Squash, 218.....	32 70
Leeks, 150 doz. bunches	150 00	Sweet corn, 1,146 dozen	286 50
Lettuce, 176 barrels ...	352 00	String beans, 96 bushels	96 00
Milk, 18,020 quarts.....	991 10	Tomatoes, 443 bushels..	443 00
Onions, 96 bushels.....	96 00	Turnips, 53 bushels ...	15 90
Amount carried up...		\$4,629 05	

SEAMSTRESS ROOM.

(Articles made, in addition to a large amount of work done in mending, alterations, etc.)

Aprons.	271	Sheets.....	457
Chemises.....	192	Shirts	426
Drawers	357	Skirts	54
Dresses.....	307	Table cloths.....	110
Napkins	60	Towels....	1,066
Night dresses	142	Waists ...	60
Pillow cases.....	474		

ACKNOWLEDGMENTS.

As in several previous years, we are indebted to the officers of the New York, Lake Erie & Western, and New York, Ontario & Western Railroads, and to the Peoples Line of Steamers, for tickets at half fare for pupils going home for their summer vacation.

To the Superintendent of the American Institute Fair, for a free admission to the pupils, with the teachers and officers of the Institution who accompanied them.

To the Manhattan Elevated Railroad Co., for half fare for the pupils attending the American Institute Fair.

To Geo. A. Dockstader, Esq., for cash donation, \$25.

To Mrs. Turner, the mother of one of the pupils, for a donation of cakes and oranges for the fifty little boys at the Mansion House.

Respectfully submitted,

CHAUNCEY N. BRAINERD,

Steward.

Oct. 1, 1884.

CATALOGUE OF PUPILS

WHO HAVE BEEN

CONNECTED WITH THE NEW YORK INSTITUTION FOR
THE INSTRUCTION OF THE DEAF AND DUMB, WITHIN
THE 12 MONTHS ENDING SEPTEMBER 30, 1884.

MALES.

Name.	Town.	County.
Abrams, William.....	New York.....	New York.
Anhalt, George, Jr.....	New York.....	New York.
Avans, James.....	Brooklyn.....	Kings.
Avans, Frank.....	Brooklyn.....	Kings.
Baars, Frederick W.....	Brooklyn.....	Kings.
Backhaus, Frederick.....	New York.....	New York.
Bagnall, Irwin E.....	Brooklyn.....	Kings.
Barger, Charles.....	Putnam Valley.....	Putnam.
Bauer, Michael.....	New York.....	New York.
Baxter, Archibald McL....	New York.....	New York.
Bechard, Alfred.....	Cohoes.....	Albany.
Beck, Herman F.....	Brooklyn.....	Kings.
Berner, George.....	New York	New York.
Berray, Seymour A.....	Walton	Delaware.
Bettels, Henry.....	New York.....	New York.
Betz, Henry, Jr.....	New York.....	New York.
Beyer, Henry.....	New York.....	New York.
Bingham, Walter L.....	Mebanesville.....	North Carolina.
Black, John M.....	Rahway.....	Union, N. J.
Blake, Charles F.....	Brooklyn.....	Kings.
Bouck, Frank D.....	Schoharie.....	Schoharie.
Bowers, Wilber L.....	Brooklyn.....	Kings.
Boyd, William W.....	New York.....	New York.
Brauer, Albert.....	Brooklyn.....	Kings.
Britt, James.....	New York.....	New York.
Broad, Henry B.....	Brooklyn.....	Kings.
Brockmann, Isaac.....	New York.....	New York.

Name.	Town.	County.
Brown, Daniel H.....	New York.....	New York.
Brown, Joseph E.....	New Paltz	Ulster.
Buermann, Henry.....	New York.....	New York.
Burkhardt, Julius.....	Brooklyn.....	Kings.
Burland, Nicholas.....	Hurley.....	Ulster.
Butterly, Peter, Jr.....	New York.....	New York.
Calwell, William.....	Albany.....	Albany.
Capelli, Anthony.....	New York.....	New York.
Carlman, Thure E.....	Albany.....	Albany.
Caton, James H.....	Lloyd.....	Ulster.
Chase, Melvin B.....	Warrensburg.....	Warren.
Chinery, John F.....	New York.....	New York.
Clinton, Richard T.....	New York.....	New York.
Cohen, Henry.....	New York.....	New York.
Coombs, William.....	New York.....	New York.
Cory, Charles.....	Saratoga Springs...	Saratoga.
Costuma, David.....	New York.....	New York.
Cotter, William, Jr.....	New York.....	New York.
Coulter, Arthur W....	New York.....	New York.
Cullen, John.....	Brooklyn.....	Kings.
Cunningham, Dennis.....	Hudson.....	Columbia.
Dackermann, Philip.....	Brooklyn.....	Kings.
Davis, Henry A.....	New York.....	New York.
Dennison, Benjamin C....	New York.....	New York.
Dittmar, John W.....	New York.....	New York.
Donohue, William, Jr....	Binghamton.....	Broome.
Drum, Jeremiah.....	Troy.....	Rensselaer.
Dunn, Ulysses G.....	Paris.....	Oneida.
Durian, William.....	New York.....	New York.
Ecka, Frank.....	Brooklyn.....	Kings.
Edwards, Sidney.....	Youngsville.....	Sullivan.
Edwards, William S.....	Whitehall.....	Washington.
Egan, Michael.....	New York.....	New York.
Ekarth, Frederick.....	New York.....	New York.
Elflein, John A.....	Roxbury.....	Delaware.
Engle, Paul.....	Berne.....	Albany.
Enz, William.....	New York.....	New York.
Erdmann, Gustave.....	New York.....	New York.
Falte, August.....	New York.....	New York.
Farrel, John.....	New York.....	New York.
Fatier, Peter.....	New York.....	New York.
Felton, Fred, Jr.....	Sheridan.....	Chautauqua.
Fisher, George T.....	Dunkirk.....	Chautauqua.

Name.	Town.	County.
Flanagan, Wm. H., Jr.....	Newburg.....	Orange.
Fogerty, Peter J.....	New York.....	New York.
Fogle, Peter.....	Albany.....	Albany.
Fosmire, William H.....	Troy.....	Rensselaer.
Fried, Maxyea.....	New York.....	New York.
Friday, Benjamin.....	Albany.....	Albany.
Friess, George.....	New York.....	New York.
Fritz, John.....	Brooklyn.....	Kings.
Gallagher, Bernard.....	New York.....	New York.
Garson, Eli, Jr.....	Black Brook.....	Clinton.
Gately, Patrick J.....	New York.....	New York.
Geary, John H.....	Syracuse.....	Onondaga.
Gehring, Louis.....	Brooklyn.....	Kings.
Gilmore, William.....	New York.....	New York.
Glass, John.....	New York.....	New York.
Gleason, George.....	New York.....	New York.
Glosque, Joseph, Jr.....	Yonkers.....	Westchester.
Glosque, Peter.....	Yonkers.....	Westchester.
Glynn, Martin.....	New York.....	New York.
Goor, John.....	New York.....	New York.
Goreth, Joseph.....	Walkill.....	Orange.
Grant, Robert H.....	New York.....	New York.
Gray, Charles.....	Newburg.....	Orange.
Gurnee, William.....	Walkill.....	Orange.
Hackett, William H.....	New York.....	New York.
Hadden, Benjamin F.....	Brooklyn.....	Kings.
Haight, Tilson W.....	New York.....	New York.
Hamm, Henry.....	New York.....	New York.
Hanneman, Herman.....	New York.....	New York.
Hanson, William.....	New York.....	New York.
Harris, William I.....	New York.....	New York.
Harth, Robert.....	New York.....	New York.
Held, Henry.....	Albany.....	Albany.
Hennessey, James.....	New York.....	New York.
Henriques, Herbert H.....	Brooklyn.....	Kings.
Henry, Robert J.....	York.....	Livingston.
Herrmann, Lewis.....	New York.....	New York.
Hogan, John.....	Albany.....	Albany.
Houck, Frank M.....	Arkwright.....	Chautauqua.
Hunt, John S.....	Blooming Grove....	Orange.
Ingebrand, John, Jr.....	New York.....	New York.
Isaacs, Benjamin.....	New York.....	New York.
Jacobs, Jacob.....	Brooklyn.....	Kings.

Name.	Town.	County.
Jastram, Charles	New York.....	New York.
Jaynes, John W.....	New York.....	New York.
Johnson, Philip.....	North Greenbush...	Rensselaer.
Joseph, Harry.....	New York.....	New York.
Jourdan, Frank.....	New York.....	New York.
Kaiser, Charles.....	New York.....	New York.
Kansridle, John, Jr.....	New York.....	New York.
Keegan, Teddy.....	Brooklyn.....	Kings.
Keiserwetter, Charles.....	New York.....	New York.
Kennedy, Henry J.....	New York.....	New York.
Kenny, Joseph S.....	Watervliet.....	Albany.
Kerr, Robert S.....	New York.....	New York.
King, Emmet.....	Richmondville	Schoharie.
Kinley, Charles J.... ..	Yorktown.....	Westchester.
Kistler, Jacob A.....	New York.....	New York.
Knox, Frederick.....	Brooklyn.....	Kings.
Koenig, Carl.....	New York.....	New York.
Koffer, John.....	New York.....	New York.
Kricheldorf, William.....	New York.....	New York.
Krekel, George.....	New York.....	New York.
Lamm, Herman.....	Brooklyn.....	Kings.
Lancaster, Lucas C.....	Cornwall.. ..	Orange.
Lange, Charles.....	Brooklyn.....	Kings.
Lehmer, Charles.....	New York.....	New York.
Lloyd, John, Jr..... ..	New York.. ..	New York.
Long, Walter.....	New York.....	New York.
Long, William, Jr.....	New York.....	New York.
Loos, George W.....	Claverack.....	Columbia.
Lorcer, Theodore.....	New York.....	New York.
Lounsbury, Theodore J....	New York.....	New York.
Loyd, James B.....	Westfield	Chautauqua.
Lyons, John W.....	Brooklyn.....	Kings.
Maloney, John.....	New York.....	New York.
Manchester, George.....	Middleburg.....	Schoharie.
Maynard, Robert E.....	New York.....	New York.
McCarthy, John.....	New York.....	New York.
McConnell, Gibson.....	Poughkeepsie	Dutchess.
McCormick, Charles.....	New York.....	New York.
McDonald, Andrew.....	New York.....	New York.
McEvoy, John J.....	Fishkill.....	Dutchess.
McKerahan, Edward.....	New York.....	New York.
McMickle, Frank H.....	Wallkill.....	Orange.
McMickle, Morris C.....	Wallkill.....	Orange.

Name.	Town.	County.
McVea, Robert	New York.....	New York.
McVea, William.....	New York.....	New York.
Meade, Peter.....	Albany.....	Albany.
Meinken, Frederick W....	New York.....	New York.
Messer, Archibald.....	Albany.. ..	Albany.
Michael, Alexander.	New York.....	New York.
Miller, George W.....	New York.....	New York.
Miller, John C.....	Goldsboro.....	North Carolina.
Miller, Joseph.....	Gilboa.....	Schoharie.
Miller, Max.....	New York.....	New York.
Minotti, Carlo.....	New York.....	New York.
Mitchell, Benjamin.....	New York.....	New York.
Mitchell, Peter, Jr.....	New York.....	New York.
Mooney, John.....	West Farms.....	Westchester.
Moore, John.....	New York.....	New York.
Moore, William, Jr.....	New York.	New York.
Morisse, George H.....	New York.....	New York.
Morris, William.....	Beekman.....	Dutchess.
Morris, William, Jr.....	Stapleton.....	Richmond.
Muench, Henry.....	Brooklyn.....	Kings.
Mull, Charles F.....	Albany	Albany.
Oakes, Charles D.....	New York.....	New York.
O'Brien, John.....	New York.....	New York.
O'Connell, John, Jr.....	New York.....	New York.
Odell, Francis.....	New York.....	New York.
Odell, George W.....	Rye.....	Westchester.
Ogle, James.....	Newburg.....	Orange.
Ogle, John.....	Newburg.....	Orange.
Ogle, Robert.....	Newburg.....	Orange.
Ogle, William.....	Newburg.....	Orange.
Osterhout, Edwn.....	Richmondville.....	Schoharie.
O'Sullivan, Richard M....	New York.....	New York.
Owitz, Henry.....	New York.....	New York.
Parish, John F	Jackson.....	Washington.
Paul, Andrew....	Brooklyn.....	Kings.
Pechette, Charles.....	Cohoes.....	Albany.
Penrose, Frank T.....	Norristown.....	Pennsylvania.
Pickruhl, Charles R ..	Brooklyn.....	Kings.
Pitt, William J.....	Haverstraw.....	Rockland.
Plunkett, James.....	New York.....	New York.
Porter, George S.....	Liberty.....	Sullivan.
Powers, James.....	Flushing.	Queens.
Probst, Herman.....	New York.....	New York.

Name.	Town.	County.
Quigg, John.....	Kingston.....	Ulster.
Redmond, Harry.....	Yonkers.....	Westchester.
Reid, William.....	New York.....	New York.
Reimann, William H.....	Liberty.....	Sullivan.
Reininger, Joseph.....	New York.....	New York.
Resue, Wesley.....	Olive.....	Ulster.
Roberts, John J.....	New York.....	New York.
Robinson, Stanley.....	New York.....	New York.
Rose, William.....	New York.....	New York.
Rosenthal, Joseph.....	New York.....	New York.
Rudolph, Frederick.....	New York.	New York.
Russell, Frank E.....	Brooklyn.....	Kings.
Ryckman, William A	New York.....	New York.
Salmond, Andrew J.....	Dunkirk.....	Chautauqua.
Sartor, Albert.....	New Lots.....	Kings.
Scharlin, Jacob.....	New York.....	New York.
Schleich, Martin, Jr.....	Brooklyn.....	Kings.
Schmidt, Charles.....	New York.....	New York.
Schmidt, George.....	New York.....	New York.
Schneider, Edward.....	New York.....	New York.
Scudder, Jonas S.....	Huntington.....	Suffolk.
Seiderer, Charles.....	Hudson.....	Columbia.
Seigler, Albert.....	New York	New York.
Sexton, Richard M.....	Hague.....	Warren.
Shanks, William G.....	Albany.....	Albany.
Sharkey, Philip.....	Albany	Albany.
Sherran, Charles.....	Hempstead.....	Queens.
Silliman, Frank D.....	Fulton.....	Schoharie.
Sinclair, Austin.....	New York.....	New York.
Slaven, Henry.....	Unadillar.....	Otsego.
Smith, Burdette.....	Albany.....	Albany.
Smith, Louis G.....	Rensselaerville.....	Albany.
Smith, Nicholas.....	New York.....	New York.
Soldwedel, Louis.....	New York.....	New York.
Sparrow, Charles H.....	New York.....	New York.
Spring, Henry.....	New York.....	New York.
Stauch, John.....	New York.....	New York.
Stephenson, John.....	Wilmington.....	Essex.
Storm, Frederic T.....	Middletown.....	Orange.
Stratton, James W.....	New York.....	New York.
Strope, Lawrence D.....	Stockport.....	Columbia.
Stryker, Frank A.....	Brooklyn.....	Kings.
Sullivan, Dennis.....	Haverstraw.....	Rockland.

Name.	Town.	County.
Taplin, John E.....	Brooklyn.....	Kings.
Thomas, Arthur L.....	Catskill.....	Greene.
Thompson, Charles T. ...	Brooklyn.....	Kings.
Thompson, James.....	New York.....	New York.
Thompson, Robert J.....	Yonkers.....	Westchester.
Toohey, Joseph.....	New York.....	New York.
Torsney, John.....	Ninneville.....	Essex.
Totten, Oscar, J	New York.....	New York.
Turner, Frank.....	Brooklyn.....	Kings.
Tweed, Richard R.....	Brooklyn.....	Kings.
Tyler, Ira W.....	New York.....	New York.
Valentine, Henry C.....	New York.....	New York.
Vandegrift, George.....	Schoharie.....	Schoharie.
Van Segger, John H.....	New Lots.....	Kings.
Wagele, Antoine.....	New York.....	New York.
Wankowski, Frank.....	Ossining.....	Westchester.
Watkins, William, Jr.....	Albany.....	Albany.
Watson, William W.....	Yonkers.....	Westchester.
Wein, Ignatz.....	New York.....	New York.
Weller, George T.....	Crawford.....	Orange.
West, Eugene A.....	Linklaen.....	Chenango.
Whalen, Edward.....	New York.....	New York.
Wicke, Frederick C.....	New York.....	New York.
Woodin, Lister.....	Dover.....	Dutchess.
Wormer, Edmund R.....	Albany.....	Albany.
Wormeth, George W.....	Delaware.....	Sullivan.
Zerovitch, Harry.....	New York.....	New York.
Zundel, Robert.....	New York.....	New York.

FEMALES.

Ackermann, Josephine B...	Yonkers.....	Westchester.
Adams, Florence.....	Brooklyn.....	Kings.
Aird, Catherine.....	New York.....	New York.
Anderson, Elizabeth M.....	Brooklyn.....	Kings.
Anderson, Henrietta.....	New York.....	New York.
Antusch, Amelia.....	Newton.....	Queens.
Ashmead, Amelia S.....	Jamaica.....	Queens.
Atwell, Ida M.....	Denning.....	Ulster.
Austin, Almeda M.....	Watertown.....	Jefferson.
Austin, Anna E	Brooklyn.....	Kings.
Austin, Nellie.	Hudson.....	Columbia.
Averell, Edith.....	Brooklyn.....	Kings.

Name.	Town.	County.
Baldwin, Catherine.....	Cambridge.....	Washington.
Barrett, Aleeta F.....	Bedford.....	Westchester.
Beesmer, Cora J.....	Olive.....	Ulster.
Blackman, Katie.....	Deer Park.....	Orange.
Bogatiska, Margaret.....	New York.....	New York.
Bologne, Josephine.....	New York.....	New York.
Boyd, Margaret.....	New York.....	New York.
Branfuhr, Mary.....	New York.....	New York.
Brown, Mary.....	New York.....	New York.
Brown, Minnie.....	New York.....	New York.
Bryan, Annie C.....	Bound Brook.....	Somerset, N. J.
Buss, Johanna.....	Middletown.....	Richmond.
Butler, Phebe M.....	New York.....	New York.
Cheek, Mary E.....	New York.....	New York.
Ciesielskie, Julia.....	Jefferson.....	Schoharie.
Conklin, Lorena.....	Cochecton.....	Sullivan.
Coppock, Elizabeth A.....	New York.....	New York.
Craig, Agnes.....	Brooklyn.....	Kings.
Croak, Maria.....	Watervliet.....	Albany.
Crolius, Grace.....	New York.....	New York.
Crolius, May C.....	New York.....	New York.
Davenport, Lillie.....	New York.....	New York.
Davis, Clara E.....	New York.....	New York.
Davis, Rachel.....	Fly Mountain.....	Ulster.
Day, Lura.....	Tompkins.....	Delaware.
Decker, Georgie.....	Montgomery.....	Orange.
Derrick, Ellen.....	Long Island City...	Queens.
Devoe, Ida M.....	Mt. Pleasant.....	Westchester.
Donoho, Margaret A.....	New York.....	New York.
Eaton, Mary.....	Brooklyn.....	Kings.
Ecka, Mina.....	Brooklyn.....	Kings.
Fish, Mabelle S.....	New Castle.....	Westchester.
Fisher, Lizzie.....	New York.....	New York.
Flanagan, Mary E.....	New York.....	New York.
Flint, Cora B.....	Gainesville.....	Wyoming.
Flint, Minnie.....	Gainesville.....	Wyoming.
Frantz, Ella M.....	Ellenville.....	Ulster.
Freeholder, Eva.....	New York.....	New York.
Gantz, Rachel.....	Brooklyn.....	Kings.
Gartland, Catherine E.....	Brooklyn.....	Kings.
Gibbs, Maud.....	Brooklyn.....	Kings.
Glosque, Mary.....	Yonkers.....	Westchester.
Goreth, Mary F.....	Walkill.....	Orange.

Name.	Town.	County.
Grant, Maud.....	Newburg.....	Orange.
Gray, Edith P.....	Barker.....	Broome.
Haigh, Eliza V.....	New York.....	New York.
Hamilton, Martha A.....	Cobleskill.....	Schoharie.
Hand, Florence H.....	Brooklyn.....	Kings.
Hasty, Martha.....	New York.....	New York.
Hawkins, Frankie C.....	Oswego.....	Oswego.
Haws, Hattie.....	New York.....	New York.
Helst, Mary.....	New York.....	New York.
Hitz, Matilda.....	New York.....	New York.
Hoag, Sarah J.....	New York.....	New York.
Hollister, Daisy.....	New York.....	New York.
Horle, Matilda	New York.....	New York.
House, Eliza M.....	Brooklyn.....	Kings.
Howard, Annie M.....	Colchester.....	Delaware.
Hunt, Katie.....	Gates.....	Monroe.
Jaycox, Martha.....	New York.....	New York.
Jost, Mena.....	New York.....	New York.
Kaiser, Cornelia.....	New Paltz.....	Ulster.
Keefe, Catherine.....	Rockland	Sullivan.
Kelly, Mary A.....	New York.....	New York.
Ketchum, Clara E.....	Greenbush.....	Rensselaer.
Kilroy, Catherine.. ..	Kingston.....	Ulster.
Kline, Mary.....	New York.....	New York.
Knack, Catherine.....	Fremont.....	Sullivan.
Knorr, Elizabeth.....	New York.....	New York.
Kortright, Nellie....	New Lots.....	Kings.
Kuehn, Bertha.....	Fishkill.....	Dutchess.
Kugler, Annie C.....	Ramapo.....	Rockland.
Lamm, Bertha.....	Brooklyn.....	Kings.
Landt, Lina.....	New York.....	New York.
Lang, Josephine.....	New York.....	New York.
Lavandoske, Rosa.....	Clarkstown.....	Rockland.
Levy, Jane.....	New Lots.....	Kings.
Lewis, Mary A.....	Albany.....	Albany.
Logue, Catherine.....	Yonkers.....	Westchester.
Long, Mary.....	New York.....	New York.
Long, Nellie.....	New York.....	New York.
Lovel, Antoinette V.....	Brooklyn.....	Kings.
Marks, Sarah.....	New York.....	New York.
Martin, Mary A.....	Albany.....	Albany.
Martin, May.....	Riverhead.....	Suffolk.
McClurg, Edna J.....	Richmond.....	Ontario.

Name.	Town.	County.
McMickle, Malvina.....	Wallkill.....	Orange.
McShane, Mary A.....	New York.....	New York.
Miller, Emma M.....	Newtown.....	Queens.
Miller, Eunice.....	Gilboa.....	Schoharie.
Moon, Cora.....	Whitehall.....	Washington.
Nathan, Rachel.....	New York.....	New York.
Nicholson, Mary.....	New York.....	New York.
O'Keefe, Margaret.....	New York.....	New York.
Palmer, Elizabeth A.....	Troy.....	Rensselaer.
Peterson, Bertha.....	New York.....	New York.
Peterson, Caroline.....	Brooklyn.....	Kings.
Pfeffer, Mary C.....	New York.....	New York.
Phillipski, Annie.....	Yonkers.....	Westchester.
Pinder, Edna.....	Middletown.....	Schoharie.
Porter, Sarah A.....	New York.....	New York.
Price, Mary E.....	New York.....	New York.
Quevedo, May F.....	Flatbush.....	Kings.
Rapp, Mary E.....	Albany.....	Albany.
Ray, Martha J.....	New York.....	New York.
Reese, Sophia.....	Constantia.....	Oswego.
Regan, Helen.....	New York.....	New York.
Richter, Jane.....	New York.....	New York.
Rinneberg, Annie.....	Brooklyn.....	Kings.
Rooney, Agnes M.....	New York.....	New York.
Rosenburg, Annie.....	New York.....	New York.
Sanford, Millie L.....	Rhinebeck.....	Dutchess.
Schaefer, Catharine.....	New York.....	New York.
Schoonmaker, Amanda....	Rochester.....	Ulster.
Sitterly, Winifred.....	Guilderland.....	Albany.
Smith, Lizzie J.....	New York.....	New York.
Snedden, Kate A.....	New York.....	New York.
Solomon, Esther.....	New York.....	New York.
Springsteen, Mary E.....	New York.....	New York.
Starbuck, Anna L.....	Malta.....	Saratoga.
Stockner, Alice.....	New York.....	New York.
Taylor, Ella F.....	New York.....	New York.
Taylor, Selina.....	New York.....	New York.
Thurston, Hannah.....	Hempstead.....	Queens.
Tiedemann, Margaret.....	New York.....	New York.
Tyrell, Jeneva.....	Brooklyn.....	Kings.
Van Varick, Isabella S.....	New York.....	New York.
Vogel, Bertha.....	New York.....	New York.
Waidler, Ann L.....	L. I. City.....	Queens.

Name.	Town.	County.
Weidmann, Lizzie.....	New York.....	New York.
Wells, Emily.....	Harrisburg.....	Lewis.
Weyant, Mary A.....	Stony Point.....	Rockland.
Wilson, Theresa.....	New York.....	New York.
Wolcott, Adelia L.....	Caton.....	Steuben.
Zenner, Mary A.....	Brooklyn.....	Kings.
Zettel, Johanna.....	New York.....	New York.
Zwink, Emily.....	New York.....	New York.

Report of the Principal.

To the Board of Directors of the New York Institution for the Instruction of the Deaf and Dumb:

GENTLEMEN :—On the 30th of September last, closed a year fraught with blessings to upwards of 400 of those who, bereft of hearing and consequently of speech, depended, for happiness and hope, upon the philosophic methods and benevolent spirit which have characterized this Institution since it entered upon its corporate existence, on the 15th of April, 1817. Its development, like its processes, has been from the vague to the known, from the known to the unknown, till now, what to the early teachers of the deaf was shrouded in mystery has become a matter of postulates, securing to the mediocre, as well as to the gifted, a degree of certainty in mental development and attainment which they can themselves appreciate.

No longer does the deaf-mute regard himself as one whose defence is his weakness, and whose justification is his ignorance, but he accepts the responsibilities of life, and he approaches, with intrepidity, the standard set for fair attainment among those who suffer from no physical disability. He comes to the Institution, it is true, a child without a language, without traditions, isolated, ignorant, hopeless, helpless, irresponsible, but it is not long before, in the glimmer of a mental dawn, his mind goes out to other minds, the relations of things shape themselves in the relations of words, the past becomes a revelation, the present, a reality, facts and principles, an interwoven warp and woof, the future, bright and alluring, life, illumined by aspiration, and exertion, encouraged by consciousness of power, while, overshadowing and regulating all, culminates conscience, recognizing consequences and accepting the idea of obligation and accountability.

This result is directly attributable to a course of instruction which allies itself to nature, and, while directing, does not thwart her, while restraining, does not maim her.

It is the misfortune of the deaf, that, owing to their absolute dependence, in the beginning, upon the idiosyncrasies of their teachers, they

too often become the victims of bigotry, which is but another name for that confined channel through which men of one idea force the tide of mental action ; and yet, they form a class whose manifold deficiencies, or rather necessities, springing from the one root of deafness, have to be met, not by one method, but by many. Destroy the root, bring into activity the lost sense, and you create conditions which take your pupil back to the position of normal infancy, and you may conduct his training from that point in precisely the same way that it would have been conducted had this sense never been wanting. But if we accept his loss not only as irretrievable, but as dating from the period of his birth, we must recognize in him a being whose mind must be reached through remaining senses that must be trained to exercises foreign to their original intent.

He thinks in visions ; he is prompted to translate these visions into visible, not audible, forms. We wish to convey to him ideas ; we follow the methods he has suggested, and present to his eye expressions which, we feel certain, he will be able to recognize. Out of this grows a system, first of natural, and secondly of conventional signs founded upon nature.

But these signs are not words. We cannot afford to leave him without the means of deriving knowledge from the written or printed page, and we must not withhold from him the ability to express his own ideas in the language which is accepted as the vehicle of thought by the community in which he dwells.

Shall this language, as originally presented to his mind, be spoken or written ? Speech finds its natural recognition in the ear ; writing, in the eye. Speech, to the profoundly deaf, consists of nothing but unheard motions—motions conveying to the untrained eye, differentiations peculiarly indistinct.

Writing and print, on the contrary, consist of visible characters distinguished with ease, and as easily grouped into separate words, and, for the purpose of convenience and rapidity in communication, finds a perfect substitute in the letters of the manual alphabet, through which words may be spelled out with a fluency always approaching, often equalling that of oral utterance. In this Institution, by an ingenious system of graded presentations, objects are associated with their written names, actions with written sentences, visible attributes, as modifying nouns and verbs, grammatically classed as adjectives and adverbs, with corresponding written words properly introduced ; and phrases and clauses having the same effect upon the primary elements of the sentence, with written expressions. To facilitate the comprehension of the relations of different classes of words, a series of symbols is taught from the outset, in connection with each word and phrase and clause introduced, so that the pupil obtains an effective, if not technical,

knowledge of grammar at every step of his progress. Obviously, the time comes when the teacher finds it difficult, by the mere gradation of exercises, to make clear the meaning of many words as used singly and in groups, especially when the concrete gives place to the abstract, and the primary and obvious to that which is metaphorical and idiomatic. Then, the use of pantomime, or ideographic gestures, and of conventional signs, which, through natural and philosophic derivation, have come to be the representatives of general terms, is found capable of cutting the Gordian Knot and of dissipating all misconception and ambiguity. Written language thus acquired, gives the pupil the ability to gain for himself knowledge from books, and to express his ideas idiomatically and correctly.

He is still, however, removed from his hearing and speaking brethren by the fact that words are spoken in his presence which he cannot recognize, and that, without the instrumentality of writing, he cannot make his wants and feelings known to those who do not understand his language of signs. It is here that philosophy suggests a further step, founded upon the fact that the utterance of spoken words is nothing more than audible phonetic spelling, which consists in placing the organs of speech in certain consecutive positions, capable of being distinguished by the eye at the same time that they give rise to sounds capable of producing an intended effect upon the ear.

To accomplish this result, the consonant and vowel sounds which enter into speech are classified :—

1st, According to the specific organs employed, known by such terms, as labial, dental and palatal ; and, 2d, according to the regulation of the breath, in producing atonic, sub-tonic, nasal and tonic effects. Thus, the powers of the labial letters, *p*, *b*, and *m*, all depend, for their expression, upon the closing of the lips, but *p*, as an initial, is atonic, or without sound in itself, and unrecognizable by the ear, till it is followed by a vowel ; *b* is sub-tonic, that is, has a modified sound, distinct in itself ; and *m* is nasal, its sound being decidedly affected by the breath passing through the nose. These distinctions are represented to the eye, by the simple closing of the lips ; without movement, in the case of *p* ; with a perceptible vibration, in the case of *b* ; and with a contraction of the nostrils, in the case of *m*.

The powers of the dentals *t*, *d* and *n*, in like manner, depend upon the close contact of the tip of the tongue with the upper teeth, and, like the three labials, are respectively, atonic, sub-tonic and nasal in their relations to the ear, while they are without movement, vibratory and accompanied by the contraction of the nostrils in their relations to the eye.

The powers of the palatals *k*, *g* and *ng*, are exhibited by pressing the tip of the tongue against the lower teeth, thus bringing the posterior

part of the tongue into near contact with the soft palate, and, in respect to each other, affect the ear and the eye in like manner with the three labials and the three dentals to which allusion has been made.

The vowel sounds are to be regarded as tonic, that is, as possessing the quality of easily flowing and distinct enunciation of tone, without obstruction from tongue or teeth or nose, capable of prolongation, and differing, so far as their appearance to the eye is concerned, according to the width and shape of the opening of the mouth.

Both tonic and sub-tonic sounds are accompanied, when at all prolonged, by inspiration, which, by expanding the chest, makes their separate individuality more apparent.

The drill to which the pupil is subjected, in connection with a constant exposition of the principles involved, is continued until he has learned to recognize the visible appearance of each of the consonant and of the vowel sounds that enter into the composition of words—at first, in a certain order, based upon classification, and afterward, in a great number of permutations, until the time comes, when, whatever elemental sound is uttered, he responds, with unfailing accuracy, by giving the corresponding letter of the manual alphabet.

Then, and not until then, are those groupings of elements which constitute syllables and monosyllabic words, given to him ; at first, slowly, so that he responds to each component part with the hand, and then more and more rapidly, till the only response possible is the gestural sign for the whole.

The solfeggio in use, a work upon the composition of which I have been obliged to bestow much labor, is based upon the plan of repeating each consonant and its combination with other consonant sounds, with each of the vowel sounds as terminals, and afterward as intermediates, and of introducing each vowel sound as the initial or intermediate of a word of which the given consonant sound is the terminal. For instance, with the consonant *p* and the vowel long *ā*, we have the phonetically spelled words, *pā*, *pāl*, *āp*, *tāp*, translated into the orthographically spelled words, *pay*, *pale* or *pail*, *ape*, and *tape*.

As the completion of the system, each pupil is to be supplied with a dictionary, at present partially in manuscript, eventually, it is hoped, to be in print, giving, in parallel columns, the phonetic and orthographic spelling of each word in common use, of which the sole syllable or the first syllable has a particular vowel for its basis.

This long process of solfeggio drill, while continued from day to day, is diversified by the repetition of simple sentences, each word of which the pupil recognizes from its elements, and repeats by both the manual alphabet and signs. The result will be, that, to all our pupils above that grade of imbecility to whose attainments nature has affixed a limit far lower than that which she has imposed upon the average

deaf-mute, we shall be able to dictate by ordinary speech, with the precision of the manual alphabet, sentences which they shall be able to write out in correct spelling, and prove that they understand, by significant signs.

The corollary of all this will be, that where the vocal organs are not impaired, the pupil will, almost unconsciously to himself, begin to speak the words he has learned to read upon the lips, and this ability will increase till there is not a word that he will not audibly pronounce, with an accuracy affected only by the absence of that natural tone and modulation which hearing alone can impart.

All this involves an amount of patience and labor sufficient to justify the inquiry whether the effort to give lip-reading and speech does not involve an expenditure of time and labor, for which there is not adequate compensation in results. How far the ability to understand what is spoken by others through the process of regarding their lips, modified, as it must be, by the slowness incident to the abnormal substitution of one sense for another, and how far the ability to speak with sufficient distinctness to be clearly understood, affected, as it cannot avoid being, by the absence of all music from the tone, is a compensation for the time and labor expended, over and above the ability simply to read and write with intelligence and precision ; is a question which can be answered only by the illiterate, for they can understand and express little that does not depend on the voice alone. But, whatever concessions must be made as to the direct advantages to be derived from this training, there can be no question as to its indirect advantages.

In the first place, the attention is evoked, as it can be in no other way, to that which is concrete.

In the second place, the reasoning powers are stimulated in a manner which peculiarly adapts itself to the condition of infantile minds.

In the third place, the forms of words are, by comparing their phonetic with their orthographic spelling, indelibly fixed upon the mind.

In the fourth place, the meaning of words, without the understanding of which the pupils could not give attention to their appearance when articulated, without finding the exercise in the last degree irksome, is unfolded by the explanations required, to minds quickened and eager to receive it.

In the fifth place, the idiomatic use of words to which the illustration of their meaning constantly gives rise, is made familiar, and its study, delightful.

So that, even were the direct advantages too slight to be regarded as a compensation for the difficulties to be overcome, there would be indirect results, so valuable, as to make the apparent loss of time an actual gain.

The hours which each pupil, above the grade of juvenile, is required to devote to improvement while he is at the Institution, are 8 or 9 in the 24 and may be extended to 10 or 11—viz :

For class-room exercises,	-	-	-	4 hours.
For mechanical instruction,	-	-	-	3 “
For study,	-	-	-	2 “
				—
Amounting to,	-	-	-	9 hours.
There remain—				
For meals,	-	-	-	1½ “
For toilet,	-	-	-	1 “
For sleep,	-	-	-	9 “
For recreation and drill,	-	-	-	3½ “
				—
				24 “

Three of the teachers teach younger classes five hours a day, but, as a general rule, each teacher spends eight hours in instruction, and thus teaches two classes a day, receiving a greater compensation accordingly.

Of the four hours allotted to the instruction of each class, the first is devoted to unsectarian religious exercises occupying about ten minutes, and to the recitation of the lesson conned the previous evening; the second, to exercises in the English language; the third, to mathematics; and the fourth, to lip reading and articulation. This arrangement admits of special classification for every hour, the standard being the ability to understand and to use the English language. It sometimes happens, however, that a pupil can read a book so intelligently that he can translate it easily into signs, but finds it difficult to express his own thoughts in clear and idiomatic English, while another pupil, on the contrary, may be good in composition, but weak in translation. In this case, there is an obvious propriety in not classing these pupils together in the first and second hours, though, as a rule, the ability to comprehend and the ability to compose go together.

In arithmetic and other branches of mathematics, it is frequently the case that there is a considerable re-classification required, and, in lip-reading and articulation, even a greater.

The last named subject of instruction—to wit, articulation—has been modified by one of the most interesting discoveries in the history of deaf-mute education. At the instigation of Mr. Richard S. Rhodes, of Chicago, we have heretofore experimented with the audiphone designed by him to enable the deaf to hear, through bone conduction, sounds in the air, not addressed to any one individual in particular. We have also used the rigid metallic ear trumpet, which has surprised deaf persons, who, without it, were absolutely unconscious of abili-

ty to perceive vocal sounds, but who were keenly sensible thereof, when these sounds were uttered within its cavity. But it was reserved to Prof. E. H. Currier, by an independent discovery (whether previously made and kept secret or not), to show that, through the flexible ear tube, fifty out of three hundred and seventy, or a little over one-seventh of the pupils in attendance at the time, were not only able to hear the voices of others, but, for the first time in years, and, in most cases, in their lives, to hear their own voices.

The result of this discovery is of the greatest importance. It is not sufficient for the pupil to hear what is said to him. He must also hear himself say the same thing. In practical instruction, the teacher first speaks to the pupil, through the flexible tube inserted in his ear, and then requires him to transfer the mouthpiece to his own lips and repeat the words that have been spoken to him. This enables him to compare his own enunciation with that of his instructor, and, after repeated trials, to imitate it with an approach to exactness. But for this, he would be entirely dependent upon the ear of his preceptor, to whom he would have to look for information as to whether he was speaking correctly or not. Now, he can depend, in great measure, upon his own ear, and merely ask of his teacher that he repeat his words a sufficient number of times to enable him to make the necessary number of comparisons.

This education of the ear and of the voice will have the effect to enable a certain number of our pupils eventually to take their place in the society of the hearing, and to converse with all individuals who may have the kindness to address them through the mouthpiece of the tube, but it will be necessary, antecedently to this, to continue, at the Institution, their instruction in the English language, so that they shall become fully conversant with its structure, words and idioms, and it will also be of great advantage to continue their instruction in lip-reading, so that they shall be able to have a greater freedom in their intercourse with others, and discern, with the eye, words not directly addressed to their ear.

The instruction in lip-reading necessarily incidental to this would be of use to that large class of persons, who are so hard of hearing that they cannot take part in general conversation, though they have sufficient hearing to enable them to follow words directly addressed to them in a loud tone of voice, and I would recommend that full provision be made for the admission of such individuals into our classes in labiology, requiring a fee from those able to pay for the additional expense required, and procuring an appropriation from the State, for the benefit of those not possessing the requisite pecuniary ability.

The number of pupils in attendance within the year covered by this report—viz., from October 1st, 1883, to September 30th, 1884—was

419 ; and for the Academic year ending August 31st, 398. For their instruction in lip-reading and other studies in language, were employed, as assistants to the principal, 16 teachers, of whom two ladies and one gentleman have retired, reducing the number of teachers in the primary and academic departments to 6 gentlemen and 7 ladies ; a corps sufficient, with the present and prospective number of pupils, to continue the work with efficiency. The value of the labors of the instructors during the Academic year, with a statement of the classification and of the studies pursued, and an account of the closing exercises is so fully given in the report of the committee appointed to conduct the Annual Examination, that it would be a work of supererogation to give a separate estimate of it in this place.

It is to be regarded as fortunate, that the retirement of Miss Caroline V. Hagadorn, from the post of teacher of drawing and painting which she has occupied for some years, has not resulted in the discontinuance of this important means of benefitting our pupils, but has rather led to a yet higher recognition of the claims of Art in the instruction of the deaf, and that the sagacity shown by the Directors in opening a convenient and well appointed suite of studios, and in engaging the services of Madame Le Prince, an artist of experience from the schools of South Kensington and of Paris, has established this department upon a basis which cannot fail to secure results far in advance of what has heretofore been considered possible in connection with Institutions of this kind. The method pursued will give to every pupil in the Institution an opportunity of receiving sound instruction in the principles and practice of drawing from Nature, while the "Advanced Classes" and "Working Studios" will afford technical and practical training in the arts of glass and pottery painting, clay modelling and casting, wood carving, wood cutting and engraving, metal work and other branches of decorative art.

This will not only elevate the character of every manual occupation in which our pupils are engaged, but will, in itself, afford lucrative employment to a considerable number. The possibilities of the scheme are already practically attested by the success, in European Exhibitions, of Mr. and Madame Le Prince's "Technical Art School," Leeds, England.

During the summer vacation, I had the opportunity of attending two very interesting conventions of instructors of the deaf.

The first was the Third Convention of American Articulation Teachers, and was held in the "Institution for the Improved Instruction of Deaf-Mutes," in Lexington Avenue, in this city, during the 25th, 26th, 27th, and 28th days of June. It was special in its character, having reference to questions pertaining solely to oral instruction. It was largely attended, and the discussions and papers were inte-

resting and important, while the investigation with regard to sensitiveness to sound, assigned to a committee of gentlemen, who have paid special attention to the subject, will, when their report is made, be likely to throw much light upon points not hitherto exhaustively treated.

The second was the Fifth Conference of Principals of American Institutions for the Deaf and Dumb, held in Faribault, Minnesota, at the State Institution, a building elegantly planned and constructed, and managed in a manner reflecting the highest credit upon the prosperous Commonwealth which maintains it. Here were gathered the principals or superintendents of twenty-six institutions, and fifty-three other persons, mostly teachers, directors and other Institution officers, who were invited to sit with the Conference as honorary members. The proceedings were continued through five days, commencing on Wednesday, July 9th, and ending on Sunday, July 13th, with a consideration of the religious phases and requirements of the work. The subjects presented were of great practical importance, and the discussion thereon took a wide range, while the papers read are to be regarded as eminently worthy of preservation in a printed form. Probably few conferences of this kind, either in this country or abroad, will be of more permanent value to our work.

These two assemblages of devoted instructors and eminent friends of the deaf showed a great advance, both in methods and results, and were of especial value, not only in furnishing the means of comparison of opinions and modes of procedure, but also, in the stimulus and inspiration they afforded.

In closing this report, it devolves upon me to make the following acknowledgments of favors bestowed. Our thanks are due and are gratefully extended to the publishers of the following periodicals and newspapers, which have contributed to the information and enjoyment of our pupils.

Monthly.

Our Record, Buffalo, N. Y.
The Mute Ranger, Austin, Texas.
The Sheltering Arms, New York City.
The Sunday School Journal, New York City.

Semi-Monthly.

Sunday School Advocate, New York City.
Deaf-Mute Record, Fulton, Mo.
Silent Observer, Knoxville, Tenn.
Mutes' Companion, Faribault, Minn. (Two copies.)
Maryland Deaf-Mute Bulletin, Frederick, Md. (Two copies.)
Mutes' Journal, Omaha, Neb. (Two copies.)

Semi-Weekly.

New York Times.

New York World.

Weekly.

The Evangelist, New York City.

The Newburgh Weekly Journal, Newburgh, N. Y.

The Utica Weekly Herald, Utica, N. Y.

The Watertown Reformer, Watertown, N. Y.

The Rome Sentinel, Rome, N. Y.

The Saratogian, Saratoga Springs, N. Y.

The Weekly State Gazette, Trenton, N. J.

The Kentucky Deaf-Mute, Danville, Ky. (Two copies.)

The Goodson Gazette, Staunton, Va. (Two copies.)

The Deaf-Mute Mirror, Flint, Mich. (Two copies.)

The Vis-a-Vis, Columbus, Ohio.

Deaf-Mute Hawkeye, Council Bluffs, Iowa.

The Deaf-Mute Advance, Jacksonville, Ill.

The Wisconsin Deaf-Mute Times, Delavan, Wis. (Two copies.)

The Deaf-Mutes' Journal, New York City. (Two copies.)

The Deaf-Mute Index, Colorado Springs, Col.

The Tablet, Romney, W. Va.

The Kansas Star, Olathe Kansas.

The New Rochelle Press, New Rochelle, N. Y.

Our Little People, Rochester, N. Y. (Twenty-two copies.)

The Register, Rome, N. Y.

We have also received reports from the various Institutions at home and abroad, and two valuable works from Dr. F. Techmer, of Leipsic :

“Phonetik Fur Vergleichenden Physiologie der Stimme und Sprache,” two vols. ; and

“Internationale Zeitschrift fur Allgemeine Sprachwissenschaft unter mitwirkung Der Herren ;”

favors which we have met, or will meet, in the full spirit of reciprocity.

Two important events, affecting the welfare of the Institution, demand a passing notice.

The first is the retirement, since the commencement of the present academic year, of Dr. J. C. Carson from the office of Superintendent of the Administrative Department of the Institution, to take charge of the State Idiot Asylum at Syracuse ; and the second is the assumption of the office by Dr. George S. Knickerbocker. The record of the former shows an unusual degree of health among the pupils, without the loss of a single one by death ; earnest effort to reduce the expenditures of his department without impairing its efficiency ; and

successful endeavor to increase the number of pupils in attendance. The record of the latter is yet to be made, but, judging from his antecedents, the highest expectations of usefulness are amply justified.

The success of the Institution in the past furnishes a ground of hope for yet greater success in the future, if, under the continued favor of that Divine Being, who, since the day when He sighed over the pitiable condition of a deaf-mute and in pronouncing the word "Ephphatha" conferred upon him the inestimable boon of hearing and speech, has made the instruction of the deaf one of the expressions of the religion of love that He came upon earth to establish, unfaltering faith in His promises and intelligent and earnest effort to carry out His purposes, be not wanting to those entrusted with its great work.

All of which is respectfully submitted.

ISAAC LEWIS PEET,

Principal.

NEW YORK INSTITUTION FOR THE INSTRUCTION
OF THE DEAF AND DUMB, *Dec. 1, 1884.*

Report on the Annual Examination

JUNE, 1884.

To the Board of Directors of the New York Institution for the Instruction of the Deaf and Dumb:

GENTLEMEN :—Your Examining Committee, appointed by the Board to conduct the Annual Examination of the pupils in the Institution under your charge, having performed the duties assigned to them, respectfully present the following report.

The days set apart for the purpose were Wednesday, Thursday and Friday, June the 18th, 19th and 20th, and upon the last named day the final examination for the school year was completed.

The main object kept in view throughout the examination, was to discover the extent of the progress of each individual pupil rather than to test the advancement of the pupils taken in classes. To facilitate this design, a programme, prepared by the Principal, was carried out, giving as a result the capacity of each pupil, and consequently offering a pretty fair estimate of the capability of the teachers. The questions assigned for each class, and for each particular study pursued therein, had been selected without the knowledge of the instructor, and while the work of examination was in progress, all reference to text books, conversation among the pupils, and assistance from the teachers, were strictly prohibited. Accordingly, the examination papers, when completed, offered a true index of the work performed during the academic year, by presenting the individual standing of each pupil.

While the examinations were going forward, your Committee passed from class to class, viewing the methods in operation, and the spirit in which the pupils responded. We were greatly impressed by the evident zeal with which even the youngest pupils entered into the school work. The manners of the pupils, their answers to the questions given them, and the cheerfulness which they maintained throughout the arduous work, indicated a most successful administration of the Department of Instruction.

In the special examination of the High Class, there was necessarily a deviation from the order indicated above. The examination of the Male High Class, under the instruction of Mr. F. D. Clarke, was conducted by the Rev. Mr. Reed, of the Church of the Intercession, Washington Heights, while the examination of the Female High Class, taught by Miss Ida Montgomery, was entrusted to Rev. Dr. Stoddard, of the Executive Committee. To both of those gentlemen, the Committee extend their thanks for the assistance rendered.

The examination of the pupils in Articulation and Lip-Reading, was conducted by the Rev. Dr. Gallaudet, on Friday, June 20th, in the chapel of the Institution, where a fair exhibition of the standing of the pupils in this particular branch was given. It is not going too far to say that the results were marvelous. The system in use, known as the Phonic Alphabet, had been carefully prepared by the Principal, and is evidently one of the most reliable methods yet devised for mastering the difficulties of lip-reading and articulate speech. During the year every pupil has been under instruction, and taught to recognize the consonant and vowel sounds which enter into the composition of English words when uttered singly. While it must be acknowledged that occasional errors were detected in the responses, it is but just to say that they were the exception rather than the rule. The examination gave unquestionable evidences of advancement.

In their proceedings the Committee were guided by the subjoined schedule of classes, which gives, in tabulated form, the number of pupils under instruction during the year, the number present at the examination, their standing according to the number of years under instruction, and their special and general classification.

SCHEDULE OF CLASSES, JUNE 18, 1884.

I.--MALES.

Class.	TEACHERS.	Standing.	Under instruction during the year.	Present at the Examination.
I.	Francis D. Clarke.....	8 years.....	17	15
II.	Thomas F. Fox.....	7 years.....	18	17
III.	Thomas F. Fox.....	6 years.....	16	16
IV.	William G. Jones.....	5 years.....	21	20
V.	Luann C. Rice.....	4 years.....	21	21
VI.	William G. Jones.....	3 years.....	24	24
VII.	C. W. Van Tassell.....	2 years.....	25	25
VIII.	G. C. W. Gamage.....	2 years.....	19	19
IX.	G. C. W. Gamage.....	1 to 2 years.....	19	15

KINDERGARTEN.

(Children under 10 years.)

I.	Chester Q. Mann.....	3 years.....	5	5
II.	Chester Q. Mann.....	2 years.....	16	16
III.	Chester Q. Mann.....	8 months.....	23	23
IV.	Chester Q. Mann.....	2 months.....	6	6

SPECIAL CLASSES.

(Deaf, Dumb and Blind.)

I.	E. H. Currier.....	8 years.....	1	1
II.	E. H. Currier.....	6 years.....	1	1

ARTICULATION CLASS.

E. H. Currier.....	10 mos. to 7 yrs..	12	11
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HIGH CLASS.

F. D. Clarke.....	9 to 11 years.....	17	14
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261	249
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II.--FEMALES.

I.	Josephine L. Ensign..	7 and 8 years.....	18	17
II.	Ida Montgomery.....	6 years.....	19	19
III.	Josephine L. Ensign..	5 years.....	20	19
IV.	Jane T. Meigs.....	4 years.....	20	20
V.	Jane T. Meigs.....	3 years.....	16	16
VI.	Myra L. Barrager.....	2 years.....	23	23
VII.	Myra L. Barrager.....	1 to 8 months.....	11	11

HIGH CLASS.

Ida Montgomery....	9 and 10 years.....	10	9
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137	134
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LIP READING.

TEACHERS.	Under instruction within the year.			Present at the Examination.		
	Males.	Females.	Total.	Males.	Females.	Total.
E. H. Currier.....	19	5	24	16	4	20
Elizabeth Mitchell.....	46		46	46		46
Maria Toles.....	55	72	127	53	70	123
Josephine F. Rintoul.....	89	24	113	82	24	106
Jane T. Meigs.....		36	36		36	36
Julia T. Brearley.....	50		50	50		50
	259	137	396	247	134	381

DRAWING.

Caroline V. Hagadorn.....	193	98	291	183	95	278
Chester Q. Mann.....	50		50	50		50
Josephine L. Ensign.....		20	20		20	20
Ida Montgomery.....		19	19		19	19
Francis D. Clarke.....	16		16	14		14
	259	137	396	247	134	381

RECAPITULATION.

UNDER INSTRUCTION DURING THE YEAR.				PRESENT AT THE EXAMINATION.			
Males,	.	.	261	Males,	.	.	249
Females,	.	.	137	Females,	.	.	134
Total,	.	.	398	Total,	.	.	383

For the purpose of affording, within a small space, as much information as possible upon the general examination, the Committee make mention of the class representing each year in the order of standing.

MALE DEPARTMENT.

Ninth Class.

This class is composed of nineteen pupils, with a standing of from one to two years, and is taught by Mr. G. C. W. Gamage. Four of the pupils were absent from the examination. The class embraced those pupils who had been the least time under instruction in the main building. Their studies were: The alphabet—manual, written and printed; Dr. I. L. Peet's Language Lessons, from page 90 to 152; Dr. H. P. Peet's Scripture Lessons, four sections developing the idea of God; United States History; Penmanship; Writing from Grammatical Symbols, and enumerating in figures and words up to 500.

The examination papers of the pupils in this class were very good for beginners. In United States History, correct answers were given to six questions. To the request for some sentences about God, the following productions are presented as specimens of the replies: "God is almighty and all-wise," "God never forgets." To the question "Does God ever err?" one answer read, "No, sir ;God never errs." The eagerness of the little pupils to show how much they had learned, the neatness of the handwriting, and their general appearance was in the highest degree pleasing.

Eighth Class.

This class is also under the instruction of Mr. Gamage, and contains the same number of pupils as the preceding class. From the programme it is found that the standing is two years. The pupils had studied Dr. H. P. Peet's Course of Instruction Part III, 30 pages ; Dr. H. P. Peet's Scripture Lessons ; Written Arithmetic ; Grammatical Symbols ; and a model letter every second week.

In Arithmetic, correct answers in twelve cases were given to the question : "A man had two sheep, and his brother gave him five. How many had he then ?" The numbers 62,868, 83,544, 62,834, 50,003, 68,430 were also added quite rapidly. The following is a specimen letter found among the papers.

"NEW YORK, June 10, 1884.

"MY DEAR FATHER :

"I am uneasy about you. I think you have forgotten me. Let me know how you are. I am well and happy. On Decoration Day, we saw the soldiers. Vacation is coming fast. I have no more to say. I remain

"Your affectionate son."

The pupils in this class showed ready familiarity with simple questions in Scripture. In fact, with all the subjects embraced in the programme the examination showed the majority of the class to be perfectly at home. The examination was alike creditable to pupils and teacher.

Seventh Class.

The seventh class, of which the standing is two years, comprises part of the pupils who were formerly connected with the Mansion House at Tarrytown, and were transferred to the main institution at the beginning of the present school year. It is under the charge of Mr. C. W. Van Tassel, and is composed of twenty-five young boys.

This class, after finishing and reviewing the Elementary Lessons, had taken up the third part of Dr. Peet's Course of Instruction, which rehearses the home history of man, from the cradle to the grave, introducing many familiar household words and phrases. With these the class showed themselves thoroughly familiar. Goodrich's History of the

United States had also been studied as far as the 56th page, and answers to such questions as "Who inhabited America before the English?" "In what order were the colonies settled?" etc., were readily given.

In arithmetic the class had been faithfully instructed, and had mastered all the fundamental rules. The following questions were asked and correctly answered: "John had 14 books, his little sister tore 8 of them to pieces. How many has he now?" Ans. 6. "Multiply 54,513,250 by 321. Ans. 1,749,875,320." Besides the topics mentioned their course also included Peet's Scripture Lessons, Model Letters, Stories, Penmanship and Drawing. The examinations were highly satisfactory.

Sixth Class.

Class six, that having a regular standing of three years, was taught by Mr. W. G. Jones, and embraced twenty-one pupils, all but one of whom were present at the examination. The course of study pursued by this class included Child's History of the United States; Swinton's Primary Geography; Peet's Scripture Lessons; Written and Mental Arithmetic; Original Compositions; Model Letters, and Penmanship. Some sentences and answers to questions, written by the pupils of this class, are favorable specimens of the attainments of deaf-mutes after three years of instruction. Words were given for the pupils to embody in sentences of their own composition. On the word "like," one wrote; "I *like* to be at school;" on "command," "God *commands* us to love each other;" on "never," "Washington *never* told a lie."

Questions in subtraction, multiplication and division, were readily answered by the pupils. In Geography and United States History, the class showed a good standing, considering the number of years they had been at school. In the latter study, in answer to the question, "What do you know about the Indians?", the following was produced: "The red men were tall and straight in stature. Their color was red or brown, their hair long, coarse and black. By nature they were brave, cruel and revengeful. But they always remembered a kindness."

Fifth Class.

In this class, the pupils were divided, according to their standing, into two divisions, both of which were taught by Miss Luann C. Rice. As in the case of the seventh class, the pupils were formerly at the Mansion House at Tarrytown, but during the present year, they have been quartered in the Institution proper. In the first division there are eleven pupils whose course of study was De Fontaine's Wisdom Teeth; Scripture Lessons, from Section XIII; Foster's Story of the Bible; Mental and Practical Arithmetic; Language Lessons; Keep's School Stories; Model Letters and Dialogues in alternate weeks. The

The class was practiced daily in writing original compositions, and every lesson was taught by manual dictation, the pupils making responsive signs. The number and variety of the questions asked on the various topics precludes any selection of specimen papers. We give, however, an example of the general questions asked, most of which, by the way, were remarkably well answered.

“Why did Christ perform miracles?”

“When were the American Colonies declared free and independent?”

“Who was Mahomet, and what did he do?”

The second division contains ten pupils, not so advanced as in the other division. The programme of studies of this section agreed in the main with that of the first division, but there was a considerable difference in detail. The first division had made greater progress in their studies, but the examination papers of this section indicated a pretty close standing to the other division of the class.

Throughout the examination papers of this class, are exhibited evidences of as great an advancement as could be expected from children of the public schools of the same age. The class was a remarkably bright set of boys, and they certainly passed a most successful examination.

Fourth Class.

In the fourth male class there were twenty-one pupils, under the instruction of Mr. William G. Jones, with a standing of five years. Their programme of study embraced Geography, United States History, Arithmetic, Story of the Bible, and English Composition, particular attention being given to the last mentioned. On the various topics, the class sustained a very creditable examination. The following is taken from one of the papers as a specimen of Composition: “Lafayette came and helped the American Army. He spent many thousands of dollars for American independence. After the war, he went home. It being learned that he was poor, Congress voted him two hundred thousand dollars and a large tract of land. In 1824, the people of the United States were gratified by a visit from their old friend.” In the studies mentioned in the programme, the pupils of the class were all well drilled, which was fully attested by the general excellence of their replies to the questions asked.

Third Class.

There were in this class sixteen pupils, of six years' standing, under the instruction of Mr. Thomas F. Fox. The programme of study which they followed embraced Historical selections from DeFontaine's Wisdom Teeth; English Composition with grammatical analysis, History of the United States, Swinton's Primary Geography, Colburn's Mental, and Ray's Elementary Arithmetic, Foster's Story of the Bible,

Weekly Composition, and Penmanship. In geography, the class was carefully exercised in the general principles of the subject, and in the physical and political geography of our own country. In United States History, the class answered such questions as : "Who were the Pilgrims ?" "What is the Constitution of the United States ?" "What was the cause of the War of the Rebellion ?" As a practice for composition, the class had been required to construct original sentences upon the most important phrases in the lesson for each day. The following is a specimen composition :

"Our teacher told us about Lieutenant Greeley. He was sent to the cold regions of the North, but has not been heard of for several years. So the government will send ships to look for him and his men. There will be three vessels. One of them is called the Alert. Queen Victoria gave it to the United States. The other two are the Bear and Thetis. I don't know if they will succeed. It would be wonderful if Greeley and his men were saved." These pupils acquitted themselves very creditably, making a favorable impression by the general correctness of their replies.

Second Class.

The Second Class, or that of the seventh year, comprises eighteen pupils, who were also under the instruction of Mr. Thomas F. Fox. Their course of study is in several respects different from that of the class just mentioned. In composition, they were obliged to translate signs into written language as the surest way of testing their comprehension of the subject. It was made a point to keep the pupils informed on the current news of the day, and have their opinion of important events in writing. They were also given a daily dumb-bell drill a few minutes before the hour for dismissal. In arithmetic they had gone as far as decimal fractions. The following was solved by all but three members of the class : "If 12 lbs. of coffee cost \$5½ what will 1½ lbs. cost?" The attainments of the class in composition are indicated by selections from sentences written by the pupils containing given words such as "gained," "attractive," "important." "General Grant *gained* several victories during the War of the Rebellion." "I do not think Examinations are *attractive*." "Composition is an *important* study." The class was examined in the following studies. Peet's History of the United States ; Douglas's English Grammar with Symbolic Analysis ; Ray's Elementary Arithmetic ; Harper's School Geography ; Language Exercises ; Foster's Story of the Bible, and Penmanship. Satisfactory evidence was given that this course had been successfully mastered, and that the pupils possessed the ability to put their knowledge to practical use.

First Class.

The rank in studies of this class is next to that of the High Class. It is under the instruction of Mr. Francis D. Clarke, and has a general standing of eight years. There were eighteen boys in the class, most of whom have completed the regular course of study offered by the Institution. As might be expected, the programme embraced a wider range and more elevated subjects than those of the younger classes. The questions given them were on the following subjects:—History of England, English Composition, Book-keeping, Arithmetic, Geography, Grammatical Analysis, Penmanship, and Original Composition.

The classes passed a creditable examination in English history and geography. In arithmetic and book-keeping all did well, and several were quite proficient. In the former subject, the following were satisfactorily performed: “Change DXLIII into figures and words.” “Change into figures, nine hundred and ninety-nine quadrillion; nine hundred and ninety-nine million, nine hundred and ninety-nine thousand, nine hundred and ninety-nine.” In book-keeping, a correct bill was made out for “John Smith bought of Charles Carter 5 chairs at \$6.00; 3 bureaus at \$12.00, and 5 frames at \$37.50.”

In composition, the class had been frequently practiced in writing narratives, letters and other compositions, and were kept informed as to the current events of the day. Below is given a story which was translated from the teacher’s signs into composition by one of the pupils. “A man in the city said that a cat might jump, walk, run and climb, but it could not count. A boy told the man that he must be mistaken, as cats can count. He said he could prove it by his own cat. One day he went into the barn to see the kittens, and brought one into the house. When the old cat found that one was missing she mewed and seemed distressed. She came into the kitchen, and seeing her kitten, took it back to the barn. That proved that the cat could count.” In all the subjects of the examination, the class passed through in a manner showing that the teacher had been skillful and diligent in teaching, and knew how to excite and gratify his pupils’ thirst for knowledge.

Kindergarten.

In this department are collected all those male pupils ranging from six to ten years of age, who have entered the Institution within the last two years, and who, from their extreme youth, are not yet prepared to submit to the drill and rules governing the larger boys in the main building. They are, therefore, quartered at the Mansion House, within the Institution grounds, and are under the instruction of Mr. Chester Q. Mann and Miss Julia T. Brearley. Altogether, they number fifty pupils, and on account of their difference in age, mental

capacity and time in school, they are separated into four classes. These classes exemplify both the level upon which the educational structure is erected and also the rapid expansion of their ideas, and awakening of the faculties through language.

Fourth Class.

There were in this, the youngest class, six pupils who had been in school two months. It was composed of very small children, who had come totally unable to hold any communication. In their examination they were able to distinguish the twelve objects, which are the first elements of instruction of the totally uneducated mute child. They were all able to spell the names of the objects on their fingers, to write them on the slates, and to distinguish the objects when requested to do so.

Third Class.

The next higher class, the third, was composed of children who had been longer in school, and were of greater intelligence. There were in this class twenty-three boys, with a standing of seven months. During this time they had advanced as far as page 35 of Peet's Language Lessons, could count from 1 to 300, and showed a decided progress in penmanship over those in the lower class.

Second Class.

The second class, with a standing of two years, had seventeen boys still further advanced. Their studies covered Peet's Language Lessons; Peet's Course of Instruction Part I; Peet's Scripture Lessons; Arithmetic and Penmanship. The Ten Commandments and the Lord's Prayer were written from memory by all the class, and in arithmetic simple questions in addition and subtraction were satisfactorily answered.

First Class.

In the most advanced class there were five boys of three years' standing, who were so far advanced in age and education as to be about ready for transfer to the institution proper. Their programme of study included Peet's Language Lessons, finished or reviewed; Peet's Scripture Lesson, first part finished and reviewed and the second part commenced; Arithmetic, Drawing, Penmanship, and Model Letters explained by the teacher. As a composition exercise, they had been drilled in original sentences with words and phrases selected by the teacher. They added 642, 983, 444 and 10,009. The class exhibited intelligence and showed general correctness in their answers.

Articulation Class.

As will be seen from the title, this class is composed of pupils who show special aptness for articulation and lip-reading. While all the other pupils receive an hour's daily instruction in this branch, the class now mentioned is under the special care of an instructor fully acquainted with the system of articulation and who employs it in all the studies pursued by his pupils. The class is instructed by Mr. E. Henry Currier, who has under him twelve pupils whose standings vary from ten months to seven years. To meet the demands of such a variety of mental capacity, it is found necessary to give very close attention to the selection of the course of study so that the youngest pupils may advance steadily with the older and more intelligent. The programme pursued by the class was Swinton's History of the United States; English Composition; Bell's Visible Speech and Lip-Reading; Monroe's Reading Charts; Arithmetic; Geography, and Penmanship.

In their articulation and lip-reading, the class showed to great advantage, their concerted speaking being a distinguishing feature. The examination papers covered a wide field, and the answers were all exceedingly well-written, the pupils showing a comprehension of the subjects.

As an illustration of their use of language, we give two specimens of unaided composition on the same subject. The first was written by a congenital mute and the other by a semi-mute.

"There was a good and pious man by the name of Abou Ben Adhem. He was kind to the people. One night he was asleep and he saw an angel come from heaven with a golden book. The book had the names of good people. He asked the angel if his name was in the book; the angel said No, and went away. The next night the angel came and showed him the book, and Abou saw his name first."

"Abou Ben Adhem was a just man who had a tender feeling towards other people. One night while asleep he had a vision of an angel writing in a golden book. Abou asked the angel: 'What writest thou?' The angel answered: 'I write the names of those who love God.' Abou asked if his name was in the book, and the angel sadly said 'No,' and vanished. The next night the angel again made its appearance. Abou asked to have his name placed in the book as a man who loved his fellow men. The angel showed him the book, and the first name was his own."

The answers to the questions in history and geography evinced great originality in the use of the English language. The class showed that it had been patiently and carefully instructed and the pupils ably responded to the conscientious efforts of the teacher to bring them to a high standard.

The Class of Blind Pupils.

The Special Class of deaf, dumb and blind boys, taught by Mr. E. H.

Currier, consists of James H. Caton and Richard T. Clinton. Both of these boys are so well known as to require no special description. Caton's standing is that of the High Class, but on account of his blindness he has the attention of a special teacher. During the year, he received daily practice in English Composition, and has studied Astronomy, Geography, Geology, and Chemistry. In addition, he was made familiar with the principles of heat, light, electricity, and magnetism, matter and motion. He also used Cathcart's Literary Reader, had read the life of Shakespeare and committed to memory many extracts from his writings. The *New York World* was read to him every day, and conversations on the current events of the day were carried on with him by his teacher and the more advanced boys. To the questions put to him on Examination day he gave answers by the aid of the type-writer, in the use of which he is an adept. We quote a few of his answers :

“Petroleum is believed to be the result of the earth's internal heat acting on beds of a rich kind of coal. The heat may be said to distill the oil from the coal, perhaps first rising as a gas, which it reduced to a liquid state by the pressure of the earth.”

“The Barometer is an instrument used for measuring the pressure of the atmosphere.”

Richard T. Clinton's studies have been Keep's Stories, committed to memory ; “Wisdom Teeth,” twenty-five pages ; Addition and Subtraction, Daily Exercises in Composition. By the help of the type-writer, he defined, “volcano,” “valley,” “laws,” “Indian,” and several other words. To the question : “After whom is America named ?” he answered. “After Americus Vesputius, a native of Florence, in Italy, who wore the laurels which should have crowned Columbus.”

The papers of these boys show how much can be accomplished by patient instruction. Their examination reflected much credit upon the ability and untiring efforts of their teacher, whose methods of instruction were as original as they were interesting.

FEMALE DEPARTMENT.

Seventh Class.

This class, taught by Miss Myra L. Barrager, consisted of twelve girls of from one month to one year's standing. Owing to the great difference of time in school, the pupils were arranged into four grades. The fourth grade had learned to recognize the names of the twelve objects, which is the first step taken by the pupils to master the English language. The third grade, in addition to this, had learned to write, and had studied the first sixteen pages of Peet's Language Lessons. The second grade had studied Peet's Language Lessons as far as page 27, and could write a few simple sentences. The first grade,

containing five of the older pupils, had still further proceeded to page 44 of Peet's Language Lessons, and had studied the first section of Peet's Scripture Lessons and the Lord's Prayer. Of these girls, little Johanna Zettel specially distinguished herself. Though only four years old and quite small, she learned to write as readily as a child two years her senior, and having once acquired this knowledge, she showed intense delight in displaying what she knew. In reply to the proper questions, her chubby little hand glided quickly along the slate forming the replies: "I am four years old," "I live in New York." For beginners, the papers of this class reflect credit upon the pupils, and indicate decided ability as well as painstaking care on the part of the teacher.

Sixth Class.

The sixth class is also under the instruction of Miss Barrager, and comprises twenty-three females of two years' standing. On examination day all were present. According to mental capacity, the class was divided into two grades. In the second grade were five bright little girls of only one year's standing, whose papers show that they have steadily kept up with the others of their class. The studies of this grade for the year were Peet's Language Lessons to page 90; Peet's Scripture Lessons to section 5; Counting in words and numbers from 1 to 5000; the Lord's Prayer, and two hymns. The most advanced grade had completed Peet's Language Lessons, and gone in Scripture as far as Section 8. They had mastered 34 pages of Colburn's Mental Arithmetic, and done simple exercises in addition and subtraction. They had committed to memory the Ten Commandments, the Lord's Prayer, and five hymns. Both grades had received instruction in articulation and lip-reading, and a short time each day was devoted to penmanship. They had been taught how to analyze sentences, placing above each word the proper grammatical symbol. The papers of these pupils show a clear comprehension of the subjects comprising their course of study. One little girl, seven years old, and one year under instruction, wrote in answer to the question: "What blessings does God give us?" "God gives us food, clothes, health and happiness, friends and teachers, and the Bible." The examination of this class, as in the foregoing, shows what can be accomplished by a teacher with patient industry and devoted zeal.

Fifth Class.

This class has been under Miss Jane T. Meigs. It contained sixteen girls of three years' standing, all of whom were present at the examination. The course of study for the year has been nine sections of the History of the Bible, studied and reviewed; Peet's Course of Instruc-

tion, Part III, pages 20 to 60, comprising a history of Manhood, Old Age, Inflection of Verbs, Words and Phrases-Illustrated, and a History of Animals in general ; 10 pages in Colburn's Mental Arithmetic, and 82 pages of Peet's Language Lessons. Articulation and Lip-reading were taught one hour a day, and instruction in penmanship and drawing were given. At the examination, "Can old people work hard?" being given out, one girl wrote, "No, they cannot work hard. They are very weak. They are wrinkled. They cough. They like to sit by the fire." To the question, "If you had much money, what would you buy?" was written the following reply, by a little girl who evidently had a kind heart: "If I had much money, I would buy meat or potatoes, or bread and butter, and give it to the poor." Most of the questions put to the class received correct answers, and their papers showed that they had studied well and had been attended to by a competent instructor, who had successfully trained them in the studies of the course.

Fourth Class.

This class, also taught by Miss Meigs, consisted of twenty girls of four years' standing. All were present at the examination. Their studies for the year embraced ten sections of the History of the Bible ; 24 pages of Swinton's Primary Geography ; and Dudley's and Colburn's Arithmetics. From the School and Family Dictionary, a number of words had been dictated to the class, with various sentences illustrative of their meaning. Articulation and lip-reading received an hour's daily attention, and model letters and dialogues were given in alternate weeks. Penmanship and drawing were also taught. In looking over the papers of this class, we find that, in general, the answers in Geography and History of Animals were correct, showing that the memories of the pupils were exercised to such a degree that their minds were capable of retaining many facts learned from their books. To the question, "What is the Earth?" nearly all wrote: "It is one of a number of celestial bodies, called planets, which revolve around the sun, and receive from it light and heat." In answer to "In what respect are the lower animals unlike man?" was written: "Animals cannot think. They cannot speak, or read, or write. They have no souls. They cannot worship God."

The work performed by this class throughout the year, as covered by their examination, show that they have received the attention of an accomplished and successful instructor.

Third Class.

The third class was under the care of Miss Josephine L. Ensign. It contained twenty girls of five years' standing. The studies of the year have been Foster's Story of the Bible, Parley's Universal History,

Harper's Introductory Geography. The Ten Commandments and the Lord's Prayer were committed to memory, and also selected hymns. Exercises in the four ground rules of arithmetic had been performed by most of the class. Ample time had been given to the teaching of language, while drawing and penmanship received their share of attention. The papers of this class indicate that the pupils have given great attention to the work of the year. We give a few illustrations. "What is the difference between History and Geography?" "History is a record of events and Geography tells of the places where they happen." "What did the people resolve to do after the flood?" "They resolved to build a tower so they could climb upon it and save themselves from destruction if God should break his promise, as they thought he would."

Many more could be quoted, but the above will suffice. It is worthy of notice that the answers were uniformly good, showing the mental capacity of the members of the class to be nearly equal. The examination was a success, and is creditable alike to the efforts of the teacher and of her pupils.

Second Class.

In the second class were found nineteen young girls, whose pleasant faces bespoke bright intellects. They were under the instruction of Miss Ida Montgomery, and had a standing of six years. During the school year, they had gone through Mitchell's Primary Geography; had studied 50 pages of Swinton's History of the United States; and had also studied Arithmetic, Mental and Written, and selected portions of the Bible. They had two hours weekly instruction in drawing, special attention being given to map drawing, all the specimens of which were well executed. The class had also learned about two hundred and fifty proverbs, some of which we take from the papers of a girl, who had mastered two hundred and twenty-seven. "A fool and his money are soon parted." "I have other fish to fry." "Rich in hair and poor in brains." The children had mastered many hymns and poems, for special occasions, which they often recited publicly in signs in the chapel. They all wrote "America" from memory. We take some specimens from the papers of the pupils. In mental arithmetic sixteen of the pupils gave the difference between 748 and 329. All but two pupils performed in writing $72 \div 8 \times 3 - 3 \div 8 + 1 = ?$ To the question, "Which would you rather have, $\frac{1}{4}$ or $\frac{1}{8}$ of a dose of castor oil?" came the answers, "I would not have any," "One fourth," "I hate it," "I do not like it." In composition they showed a clear, simple style, and few errors of construction were noticeable. The ability of the class in this branch was tested in writing the story of Mother Hubbard, all using their own language. The specimens are so charm-

ing and so characteristic of the style of the pupils, that want of space alone prevents us from reproducing a few. Geography, however, was the special study of the class, and here they excelled, being well drilled in the map of the United States. The work of the class in all respects was excellent. Their comprehension of original questions, and the facility and quickness with which they answered, was astonishing. Both pupils and teacher deserve unstinted praise for the fine showing they made, indicating a most careful and comprehensive training.

First Class.

As in the case of class third, this class was also under the able instruction of Miss Josephine L. Ensign, and has a standing of seven years. During the year they have gone over the required portion of text books selected for the perusal of pupils who have been seven years in the graded course. The books used were Anderson's School History of England, Swinton's Grammar School Geography, Kerl's Common School Grammar, with symbols, Ray's Practical Arithmetic. The Ten Commandments, the Lord's Prayer and selected hymns were also committed to memory, and drawing was taken up with pleasing results. As a general rule the pupils of this class show a thorough knowledge of what they have studied, and their ability to express their ideas in concise sentences reflects credit upon themselves and their teacher. We quote at random some of the questions given, with the replies : "What can you tell me of Alfred the Great?" "His achievements and the virtues and talents which he displayed in every circumstance of his life, justly won for him the title of the 'great.' He endeavored to rescue his people from the gross ignorance in which he found them, and in this he succeeded." "After the death of Moses, who ruled over Israel?" "After Moses was dead, Joshua ruled over the people, and they obeyed him as they had obeyed Moses. For the Lord gave Joshua wisdom, and made him able to teach them as Moses had done." Words given out to be incorporated in sentences, were illustrated by the pupils with pleasing exactness. We give some examples, the required word being in italics. "Prof. Morse *invented* the telegraph many years ago. He is dead now." "We *understand* Dr. Peet's signs, because he makes them so plain." Much more is worthy of quotation, but want of space makes it impossible for us to do full justice to the class.

Special Classes.

The classes coming under this heading include the classes in articulation, and those receiving instruction in art. In both of these departments are embraced all the regular classes, each class having had an hour's daily drill in articulation and lip-reading, and also two hours per week in drawing.

Lip Reading.

The examination was held by Rev. Dr. Gallaudet, as will be seen in the opening part of this report. Every pupil in the school, excepting the two blind boys, has had instruction in this branch under some one of the six special teachers. Of the whole number taught, Professor Currier had charge of 20, Miss Maria Toles, of 123, Miss J. F. Rintoul, of 106, Miss J. T. Meigs, of 36, Miss Elizabeth Mitchell, of 46, and Miss Julia T. Brearley, of 50—making a total of 381, the whole number of pupils under instruction, excepting the two blind boys. There was quite a percentage of these who could speak accurately and distinctly as well as read the lips.

Art.

In the department of Art, the main body of the pupils were instructed by Miss Caroline V. Hagadorn, the regular teacher of drawing. However, Mr. Clarke, Miss Montgomery and Miss Ensign, taught part of their classes in this branch. They were examined by Prof. Augustus Le Prince, who recommended the list of prizes in the department which have been awarded by the Board.

The High Class.

In addition to the regular examination of the High Class, the details of which will be found in the report of the examiner, Rev. H. Morton Reed, there was also a special examination of the six graduating members of the class to determine the question of their diplomas, the gold medal, the prize for rhetoric, and the Harriet Stoner Testimonial. The special committee to conduct the examination consisted of Professors Frank D. Clarke, E. Henry Currier and Thomas F. Fox, who presented questions on the following branches covering all the studies of the three years' course, viz: History of England, Grammar and Rhetoric, Physical Geography, Arithmetic and Book Keeping, Vegetable Physiology, Chemistry and Physics, Moral Science, and Latin. The results of the examination in regard to the scholarship of the class, may be seen from the resolutions, regulating the conferring of the diplomas and prizes.

CLOSING EXERCISES.

The exercises of Closing Day were held in the chapel of the Institution at ten o'clock A.M., on Wednesday, June 25th, in the presence of the Board of Directors, the parents and friends, of the pupils and others interested in the Institution. The programme was as follows:

I.—PRAYER.

II.—ADDRESS BY THE PRESIDENT, HON. ERASTUS BBOOKS.

III.—GENERAL REPORT ON THE EXAMINATION, by the Chairman of the Committee appointed by the Board of Directors.

IV.—SPECIAL REPORTS ON THE EXAMINATION OF THE HIGH CLASS, by Rev. C. A. Stoddard, D.D., and Rev. H. Morton Reed.

V.—EXERCISES BY THE PUPILS :—

(1) *Primary Instruction*, illustrated with a class from two weeks to eight months under instruction.

(2) *Impromptu addresses*, by

Walter Lenoir Bingham,
Anthony Capelli,
John Henry Geary,

Theodore Irving Lounsbury,
George Sidney Porter,
Arthur Lincoln Thomas.

by James Henry Caton, a blind deaf-mute, and by Charles McCormick, a deaf-mute without hands.

(3) *Pantomimic Representations*, by Frederic Ekardt and May C. Crolus.

(4) *Answers to questions proposed by the audience*, by

Georgie Decker

May Martin,

Frances C. Hawkins,

Emily A. Wells.

Mary A. Weyant.

(5) *Poem*, delivered in signs, by Georgie Decker.

(6) *Graduating Essay*. Subject—"Characteristics of Negro Life"—by Walter Lenoir Bingham.

(7) *Graduating Essay*. Subject—"Ambition"—by Arthur Lincoln Thomas.

(8) "*Othello's Address to the Senate*," rendered in signs by James Henry Caton.

(9) *Graduating Essay*. Subject—"Technical Education"—by Theodore Irving Lounsbury.

(10) *Graduating Essay*. Subject—"The Antiquity of Man"—by Anthony Capelli.

(11) *Graduating Essay*. Subject—"Modern Painters"—by Dennis Sullivan.

(12) *Hymn*—"America"—given in concerted signs, by a choir of girls.

(13) *Oration*. "Results of Small Beginnings," *with Valedictory Address*, by George Sidney Porter.

VI.—DISTRIBUTION, BY THE PRESIDENT, OF CERTIFICATES, DIPLOMAS AND PRIZES.

VII.—PARAPHRASE OF THE LORD'S PRAYER, IN CONCERTED SIGNS, BY A CLASS OF BOYS.

VIII.—BENEDICTION.

The annexed essays had been prepared by the members of the graduating class, and were read by the Principal, being at the same time delivered by their authors in signs for the benefit of those who could not hear :

CHARACTERISTICS OF NEGRO LIFE.

It is, I believe, generally admitted that the spirited pictures of negro life now current, represent the past rather than the present. The picturesque, old-time customs that have hitherto formed the main element in the conception of negro life, have passed or are passing away. Doubtless the sense of their decadence adds to their interest, for, as a rule, the perspective of time is no less essentially an adjunct of the picturesque than the perspective of space.

The most casual observer cannot fail to be struck with the perfunctory, half-hearted manner, in which old customs are gone through with. The immemorial corn shuckings, pre-eminently the most characteristic of all such "gatherings," once the rendezvous of whole neighborhoods, and the nocturnal scenes of mirth explosions, are now very tame affairs indeed. Time was when November evenings were fitfully resonant with corn shucking songs, when, night after night, stunning volumes of the weirdest melody shrilled through the humid air, till met and buffeted by kindred strains, and when on many successive nights one would seek in vain to pass beyond their sway. Now, the "oration put out," no crowd assembles, and, as a rule, the planters are driven to husk corn in the day time with hired labor.

In short, an unmistakable change in negro character, the natural outcome of his altered condition in life, is at hand and in an advanced stage of progress. He is putting away childish things, and striving in his own crude, grotesque way, to grasp matters of higher import. The bulk of the black race have learned to read, after a fashion. Their primer is the Holy Bible, reading has produced its inevitable results on a race once ignorant, imaginative and susceptible. That wondrous volume is suddenly unsealed to hearts too impressible to ignore, to minds too unphilosophical to nullify. Sudden light discovers and magnifies to the unthinking and godless the awful peril of their position. A material heaven looms above them ; a terrible abyss yawns beneath. They recoil in horror and dismay from their courses. Agreeableness is the touchstone to which the negro brings every thought, action and word. Pleasure and happiness become synonyms for vice and ungodliness. Never before, perhaps, in the history of the world, have two decades brought such a manifest change in a race.

In regard to religious belief, the vast majority of the blacks are Baptists. Next in point of number come the Methodists. Lastly, though vastly in the minority, stand the Presbyterians and Episcopalians. In fact, the latter admit and deplore their inability to carry out an ade-

quate system of missionary work among the negroes. In only a few of our great cities do we find African Episcopal churches. True, all the white Episcopal churches have galleries set apart for the negroes, but they are unused, or at most sparsely occupied. It is not common to see a white Episcopal church with one or more colored members. As a rule, the doctrine and ritual of this church seem utterly incomprehensible, and therefore repellant, to the negro. As above stated, the bulk of the negroes are Baptists, staunch and immovable. Nor is the reason for their preference hard to find. The glowing and tumultuous fervor of the revival, where hundreds, writhing in inward agony, literally cast themselves in the dust; the weird solemnity of the night on which each new convert rises in turn in the hushed, dimly lit church, and with hands stretched toward heaven, pours out with characteristic volubility his minute account of his desperate struggle with the devil, his hairbreadth escape from the abyss, his brief sojourn in heaven; the haunting scene of the baptizing, where thousands assemble around the leaf-ensconced, unrippled pond, gazing, swaying, swinging, shouting, awakening echoes that have slumbered since the departure of the red man. These only are the sermons that speak irresistibly to him. Without them, religion is dull and insipid.

The negro preachers may be sharply divided into two classes, the educated and the uneducated, or, as they phrase it, the “*larnt*” and the “*unlarnt*.” The former are young men, who have grown up amid the new order of things, and who by dint of their own industry and frugality, have managed to defray part of the cost of their limited education, some assistance having been afforded by their respective churches. They read with tolerable fluency, are slight smatterers in theology, and write in a fashion which, although wholly unintelligible to educated people, is, I believe, decipherable by their own race. These young divines, though they have higher ideas for their race, and are generally acquiring a wholesale influence over them, do not as yet possess the sway of the older uneducated preachers. Then we see among these older ones, those who are capable of manufacturing theology, and coining words with the facility of a Carlyle. A minister of this class may just be able to flounder through a chapter of Scriptures. He may be uncouth in gesture and barbarous in diction; yet earnestness lends dignity to his manner and passion fuses his jargon into eloquence. He may habitually outrage logic, and occasionally contravene Scriptures, but the salient points of his discourse are sound, and his words go straight home to the hearts of his hearers. His power out of the pulpit is also great, almost boundless. Within his own parish, he is practically a priest and pope. Excommunication itself is his most powerful weapon. His censorship of the morals and deportment of his flock, though to our minds unsupportably annoying and humiliat-

ing, is undoubtedly wholesome and necessary. Though his discipline can by no means escape the charge of inconsistency, his influence is always exerted to make them honest and faithful men and women, and to restrain the besetting sins of the race. In many instances, he resorts to their employers for information touching their honesty and industry. Then monthly, on a stated Saturday, they are rigidly required to assemble and give an account of themselves. As the negroes possess almost a morbid local attachment, they are exceedingly loath to transfer their membership. When in quest of employment, they move to a distance, and in many instances this monthly attendance involves a tramp of forty miles or more. But no excuse is taken, and upon failure to attend for three consecutive months they are unhesitatingly cut off. It is at these meetings that all rumors touching the morals and deportment of each member are rigidly investigated, and the culprits summarily, though from our stand-point indiscriminately, punished; the same penalty, six months' suspension, being inflicted for dancing and chicken stealing, and the like.

Education, since the close of the war, has done much in reforming their habits and opinions, and elevating their condition. Before the war, nearly all the negroes could neither read nor write. Upon the establishing of public schools, colleges, and a few universities for their race, there has been thus far a great change for the better. These institutions of learning turn out hundreds of young men and women polished in manners, well read in science, and even possessing a mastery of foreign languages. To-day, in North Carolina, there is a railroad in construction whose president, secretary, treasurer, chief civil engineer, and all officers connected with the road, are colored men of wealth.

In the southern states are found many of this race acquiring wealth and possessing some of the finest and most extensive plantations in the "Sunny South." But space does not permit to speak to any extent of their wealth and standing, except to point to the many lawyers, senators, congressmen, and clever judges, of that color.

There still exists among the colored people a class known as "old slaves," who are extremely ignorant, superstitious, and believers in the nocturnal ghost and bad omens. As an instance of their belief in the supernatural, I need but cite an occurrence which happened in North Carolina a few years ago. A large gang of blacks, principally ex-slaves, while working in a cotton field, chanced to espy a balloon with its aeronauts astray from a circus exhibition. As it came steadily towards the ground, not being able to comprehend its mission, they took simultaneously to their heels in the direction of their quarters, a few miles away. Believing that the day of judgment had arrived, they were frightened almost to death, and screamed and wept so that it was

with the greatest difficulty that the overseer could pacify their fears.

However, the proportion of the people possessing such crude notions, form but a small ratio of the whole colored population. As I have already indicated, the present generation of the race is keeping step with the progressive spirit of the times, advancing slowly but steadily in the direction of enlightened ideas and sound reasoning. The only thing yet to be desired for them, is their liberation from political servility to any particular party, and even this seems to be among the possibilities of the future.

Taking into due consideration the past and present of the colored people of our country, the most prejudiced is forced to own that the freeing of this great mass of people from abject servility, and giving them a place among mankind, has fulfilled the predictions made by sage statesmen at a time when passions controlled the popular feeling.

Our times have witnessed many evidences of improvement, but no matter how greatly other things may have advanced towards perfection, it is certainly true that the improvement of the condition of the colored race is as marked as it is wonderful.

WALTER L. BINGHAM.

AMBITION.

Ambition is often mentioned as a vice. This seems to me to be because people confound a selfish grasping after power with true ambition, from which springs the desire of fame, honor, superiority or distinction. In its effects on feeling and character, it is a powerful stimulus to action, and like every other good thing, it can be abused. Compare the triumphs of Napoleon and Washington : the one was animated by selfish ambition ; the other possessed an ambition so regulated by principle that it was never revealed. The former sought fame that led him astray from the path of true glory, that incited self-gratification and that made him hated by the friends of freedom ; the latter was prompted by the noblest of purposes, by the strongest love for his fellow-beings. While the former vainly tried to resist the envious combination of abler despotisms against his new empire, and justly fell and ended his life in exile, the latter conquered and broke the bondage of injustice and oppression to secure human rights and human liberties for his own country. He was on the highest acme of fame, and “ confirmed by universal applause,” and left to future ages a noble name unsullied by a single stain. What nobler ambition could a man have ?

In the majority of mankind in civilized countries, the love of praise is both the strong and weak point : it renders a person weak when it becomes the avenue of vanity ; it renders him strong when it serves to create an ambition for eminence or noble attainment. It fires the printer, the mechanic, the farmer, the artist, the author and the poet,

and those who stand on the highest summit of moral elevation are by no means free from its influence.

In early times the condition of deaf-mutes was very pitiable ; but God put the ambition to teach deaf-mutes into the heart of De l'Epeé, and you to-day see a small portion of the results of his ambition. His work reached even to America, through one of his pupils, Laurent Clerc. He, an eminent teacher at Paris, France, destitute of hearing, was possessed of generous ambition. His soul was kindled with intense zeal to extend the blessings of instruction to others similarly afflicted, and led him to drop the seed of education in the rich soil of America. It has released our darkened minds from the bonds of ignorance and inactivity, and given them freedom for a wide domain of usefulness. Having emerged from this mental darkness, we have been led, step by step, up the hill of knowledge by Ambition.

To show a few of the results that have flowed from the beginning and that there are rewards for the ambitious deaf-mute, I will mention one known to you all—Mary Toles Peet. Shut out from all the enjoyment which can be derived from music by the outer ear, her mind still hears the music of the soul, and her fingers record it for the benefit of others less favored. She is more widely known than many of the galaxy of brilliant women famed for talent and ability, as a poetess. Henry W. Syle, in spite of infirmity and of the deprivation of hearing, achieved superiority in intellect. He went through college in England. He was so expert in learning that the degree of Master of Arts was conferred upon him by Yale College. He is now an eminent minister of the Gospel. In the field of Art, we can point proudly to Humphrey Moore. His pictures produce money and fame, and the noble pictures that he designed are now exhibited in the art galleries of New York. These achievements place him foremost among deaf artists. But our own Ballin may in a few years wrest from him the title of the first, by rising to a higher level.

The names of those who, as editors and writers, and even as clergymen and lawyers, have equalled, if they have not excelled, their more favored brethren who can hear and speak, are becoming numerous, and deaf-mutes have no longer reason to hide their heads from a sense of inferiority.

It is essential that we should not falter, even though many and great obstacles and discouragements interpose. Had Columbus not been actuated by the ardent desire to discover the New World, America might to-day exist the barren continent of four centuries ago. Had our ancestors hesitated while determining the injustice of taxation, the old Independence bell would have never pealed forth its grand notes of freedom. And, it may be, the future holds for some of us a noble gift, if we have the ambition to seek it earnestly.

As the Supreme Being is the only judge of our character and achievements, He only is the fit rewarder. Let the ambitious man turn all his thought toward Him, with the confident assurance that if he employ all his abilities to the best advantage, the time will come when the great Judge of mankind shall proclaim his worth before men and angels, pronouncing, in the presence of all created beings, that best and most significant of plaudits, "Well done, good and faithful servant. Enter thou into the joy of thy Lord."

ARTHUR LINCOLN THOMAS.

TECHNICAL EDUCATION.

Technical education is to cultivate and form by practice the mind, the hand and eye; so as to teach them to build or make or do things. It sets the pupil at work to learn things that may be of practical use to him in after life. He may live upon his technical education, if he has a good one. In short, it is learning a trade. Its importance is very great. Every one admits that each person should earn his own living, and this education fits him for it.

Every trade has its own tools, each of which is intended for one or more uses, and to be cared for in a particular manner. A boy, who had half learned a trade, knowing that chisels were sharpened on a grindstone, might infer that a dull saw should be also. The result would be bad for the saw and the grindstone. There are a thousand other ways, in which an untaught boy goes wrong in every trade. Deaf-mutes, as a rule, should be carefully trained to a trade, for their knowledge is not gained from hearing. They have to go to school to learn a trade as well as class-room studies; for every man, if he be not employed where brains only are used, must know a trade, must know how to use his hands, must get his eyes educated, and, especially, must have his mind trained.

It was the old idea to put a boy at a trade, and leave him to himself to learn or not. The new method differs from this radically. Each tool is the subject of a lesson to a class. The uses of the tool are carefully explained, and then each pupil is sent to practice, and so on. Take the art of swimming, for instance. The old method was to take a boy, and throw him into the water. If he managed to flounder out, he was said to have learned to swim. If he did not, he was told to "kick," or was pulled out, held up by the heels until the water ran out of him, and then the valuable lesson was repeated. By the new method, one thing is taught at a time. First, the proper stroke on dry land; and, when that is learned, the fact that water will support the body; and lastly, the combination of the two.

This method of teaching trades costs more than the old method, just as every thing that is good costs more than that which is bad; but it is worth more. A boy or girl of ordinary intelligence could learn how

every part of a trade should be done, and would be ready to go to a work-bench and practice what he knew until the skill and rapidity of long use came to him, and made him a skillful workman, in a much shorter time, if he should pay strict attention to his trade, than any one who follows another method. If a boy wishes to learn a trade, printing, for instance, he can begin at once, and learn every little thing, one by one,—learn how to set up types, how to space them, to empty his stick, to lock the matter up, etc., but when he has learned it, he should not attempt to go into carpentry. He may not know how to use the chisel, would sharpen it on both sides instead of one, would not know that it must be held with the beveled side inward to make a clean, smooth cut. In fact, he will have to learn his trade over again, but the time saved by learning his trade thoroughly from systematic teaching, instead of picking it up from a long course of shirking in a shop, can be well improved by giving scope to individual taste. Has a boy learned to be a good carpenter, if his fancy dictates, let him take to wood-carving, turning, mechanical drawing, or engraving; has he become a good tailor, let him select some specialty in that line; or, if he is a good gardener, let him learn budding, grafting, floriculture, agriculture, the care of poultry, or some other pursuit that is or might be useful to a gardener, and so on with all other trades.

In conclusion, I wish to say that technical education is a necessity, and should be followed here and everywhere. Those who have had no technical training are at a great disadvantage. Their own industry, which they generally believe to be great, and their own talents which they have fancied to be unequalled, are found to suffer by a comparison with those of others, and they betake themselves, in despondence, to the refuge of indolence, and think it easier, if not better, to want wealth than make any efforts to get it. Thus thousands have passed through life angry with fortune, while they ought to be angry with themselves—too fond of the comforts and enjoyments of riches ever to be happy without them, and too indolent and unsteady, ever to persevere in the use of those means by which they are alone attainable. To the boys who have to begin anew or to continue in learning their old trade, I quote the following:

“ Would you be instructed too,
Watch well the rage of boasting to subdue;
Hear every man upon his favorite theme,
And ever be more knowing than you seem;
The lowest genius will afford some light,
Or give a hint that has escaped your sight.”

THEODORE IRVING LOUNSBURY.

THE ANTIQUITY OF MAN.

Adam and Eve were the first living beings on the Earth. God, the Almighty created them in his own image. He gave them the Garden

of Eden to live in. Here they dwelt happily. Sin was unknown to them and hence this was the first period of human existence and is known as the golden age. But alas ! the serpent tempted Eve to eat of the forbidden fruit ; after this, they were driven out of the garden, and their way upon the earth was corrupted.

Age after age has existed since man was created, and no one can tell how many ages have come and gone since the first period ; but a few persons of our day have been unwittingly imposed upon by talkers who proclaim that science has exploded this, and settled that, and discovered new laws that overturn faiths ; but when we ask evidence of the truthfulness of such assertion, we are too often met with short and sharp answers.

The vast majority of Christian scholars assert that there is no evidence within or without the Scripture records that is sufficient to prove the existence of man on earth longer than *four or five thousand years before the Christian era.*

According to the old Testament, Usher makes it 4004 years B.C. The Septuagint makes it 5500 years B.C., while the Samaritan Pentateuch and Josephus differ somewhat from these. There seem, however, to be no sufficient data for any absolute certainty on the subject ; but such men as Lyell and Lubbock and Darwin and Huxley assume to speak in the name of science that the existence of man has been from an immense antiquity. It is even asserted that man is developed from an ape-like creature.

All the facts and arguments by which men have attempted to prove that man has had an immense antiquity upon the globe, have not yet been apprehended. Now let us trace a direct thread through history, through the nations of Modern Europe back to Rome, and so on. We find that the beginning of Ancient Rome is perhaps seven or eight centuries before the birth of our Saviour. We trace the history of Greece, and go a little further back ; but, alas ! we are soon lost in the dark. Again as we proceed to go on, we get a clew in the monuments of Egypt, Assyria and Babylon, but they help us little, as they furnish no sufficient data or facts on human history beyond at the utmost 3000 B.C.

Tradition tells us many a story, but nothing of the creation, of the happy garden, of temptation and failure, and of the mighty flood of waters. It tells us not of an iron, a bronze, or a stone age at the beginning of human history, but of a *golden age*, and nothing goes further than the Biblical record.

It has always been generally admitted that myths have some foundation in nature or in facts, as they are the creations of the imagination and the dramatic fancy personifying the elements of nature, or deifying great heroes and chieftains, but there is nothing in all the vanish-

ed stories of mythology to warrant the assumption of an immense antiquity for man.

It has been argued that the diversity in form, size, color and physiognomy indicates either a plurality of human species, or else a great antiquity of the race ; but the prevailing opinion is that all such physical changes may have been effected within a few generations by difference of climate and modes of life.

At the opening of the *Sanscrit* language and literature to European scholars, in the latter part of the eighteenth century, an effort was made to study human speech. It was then commonly believed that the Hebrew was the primitive language of mankind, but it soon became apparent that nearly all the modern tongues of Europe were members of one great family, and closely related to the language of India. It was also plainly seen that the Sanscrit was but an older sister of the Greek, the Latin and Gothic, though seeming like a mother to them all. The Hebrew was found to belong to another family of languages. The results of comparative philology point strongly to a common origin of the entire human family, but we can discover nothing that requires us to assume an antiquity for man greater than that of the common Biblical chronology, or that the human race has existed more than six or eight thousand years at most.

In the department of Geology, it is claimed that there are many conclusive evidences of the great antiquity of the human race ; but the most scientific men of the period have, up to date, been unable to name the time of the creation of man with any degree of accuracy in connection with any geological event. Mr. Jukes, of England, says that the existence of man on the earth has been about 100,000 years ; Prof. Fuhtrott, of Germany, says it began about 200,000 or 300,000 years ago ; Dr. Hunt, formerly President of the British Anthropological Society, says 9,000,000 ! Prof. Huxley says a hundred millions of years ago. Sir Charles Lyell deems it unnecessary to name any specific date, but in one of his recent articles on the "Antiquity of Man," he fixed the date at 800,000 years, but at another time on the same subject he dropped down to 200,000 years.

To prove that the existence of man on earth has been above that which is known in the Bible, men of scientific attainments have studied up various parts of Nature, such as peats, gravels, caverns, lake-dwelling, monuments, skulls, skeletons, etc. : they have even tried to prove that man was developed from the ape, and was originally a savage ; but all these and a thousand other thoughts have not yet given satisfactory evidence to prove it. Therefore the Biblical account of the antiquity of man should be received until some one clearly shows it to be false, and gives something better than it instead.

ANTHONY CAPELLI.

MODERN PAINTERS.

Much progress has been made since the times when the great painters labored, in teaching the popular judgment, to award to them the reward they deserved.

Now it is only necessary to say "an old master," and critics see nothing but excellence.

I shall briefly try to give a few of the requisites of a painter in these days, and to point out some of the trials that beset him. No man has more respect or love for goodness and truth than the painter. No man can be a painter, who has not good ideas on literature, though he may not be able to give them the most polished expression in language. The true gold of art should never suffer neglect, because the trade requires it. While at work on a picture, the artist should think of the subject he is painting, and not of the dollars he is going to sell it for. Many a promising young artist has been spoiled by painting "Pot boilers."

To seek the reputation of a great artist, whose works are honored by the public, the highest ideal becomes a duty to all who have knowledge of what is really great art and the ability to declare the nature of a thing by the authority of the Beautiful and the True. The painter, who walks humbly with nature, will not lose sight of art, and will find in all that is truly great in his works a near approach to nature.

Nor is it to be considered that the artist has learned the whole art of painting when he has acquired the power of representing any natural object faithfully. Ideals of power always imbued with some of the higher ideas of truth and beauty, should be his aim. The picture must exist in the brain of the painter before it is sketched on the canvas, though, as the work of the hand goes on, the mind may change or expand the picture before it, perfecting it and improving it.

And this knowledge of what is truly good and beautiful applies also to landscapes. A landscape should, of course, be a good copy of the scene that it represents, but the painter should know when it looks best, and how to bring its beauties into prominence and throw its defects into the shade. As the portrait painter must catch the expression of his model, so must the landscape painter catch that of his, for a landscape has as many expressions as a human being.

The man who combines all these qualities and trains himself aright, cannot fail to be successful. Deaf-mutes have here an equal chance with their hearing brethren. We can point proudly to the success of Humphrey Moore, whose pictures have been exhibited at Milan, Venice, Florence and Paris, and hopefully to Albert Ballin, a graduate of this Institution, who is now studying art in Europe, while the life-long success of John Carlin in this city is well-known to all of you.

DENNIS SULLIVAN.

The exercises of the pupils concluded with an Oration on the "Results of Small Beginnings," with the Valedictory Address, delivered in signs, by George S. Porter, and interpreted by the instructor of the High Class.

ORATION AND VALEDICTORY.—"RESULTS OF SMALL BEGINNINGS."

Art, Science and Literature, have contributed so much to the cause of civilization, that the curse of labor seems to be rapidly disappearing, and man to be growing more and more like the great Creator, of whose existence new proofs are given to him from day to day.

In primitive ages of man, art was foremost. The exigencies of his condition made it necessary for him to provide protection from the outer elements, thus forming the germ of architecture. The first beginnings were probably rude and simple, but constant progress was made.

In architecture, the Greeks made the most surprising advances, and Athens stands pre-eminent in the history of civilization, in the variety, splendor and premanency of her contributions to the progress of this beautiful art. It seems a long way from the hut of the savage to the palace of a king, or from a log across a brook to the East River Bridge, but one is the direct result of the other, in each instance. Whether we have reached the end yet, or there still remains further developments, is a question which, judging from the past, is ever progressive.

Our languages also had their beginning. Commencing with rude and harsh cries, expressing only danger, hunger, and so on, man gradually added more and more to his language. Then ages rolled away, and the vicissitudes of time brought on greater results. The unpleasant discord of sound was modified by art, and made to harmonize with the sense of hearing ; and spoken language gradually came into existence. The first beginning of writing, strange as it may seem, was probably a branch broken from a tree to mark the way, or a stake set up to serve as a warning. Then came other signs, rude and poorly done, but answering a purpose ; these developed into hieroglyphics, and then into an alphabet of sounds, and we had writing.

To satisfy his religious cravings, man naturally brought sculpture into requisition, hewing and carving for himself gods out of stone and wood. Gradually these became better and better, until they reached such a degree of perfection, that we read of a sculptor who made an imitation of a woman so real that he fell in love with it, talked to it, and adorned it with jewels of great value.

We can not give any one the credit of being the originator of Art, as it sprang up naturally everywhere, as a result of necessity and desire. It seems apparent that our Creator implanted the love of it in every human being as a source of happiness and a means of virtue, and made the exercise of it useful in promoting the virtue and happiness of

others. The biblical record tells us the first sculptors were Bezeleel and Aholiab, who lived about 1500 B.C., and made the ornaments of the tabernacle out of gold, silver and brass.

Literature seems, in some respects, to be an exception to the general rule. The best productions are not, by any means, the latest. Works written so long ago that the authors are known only as a name, still stand in the front rank of literature. Genius knows no age nor country, but the appreciation of it grows from year to year. It is not certain that one man in a thousand heard of Homer while he lived, while now any one of any education knows him well through his poems.

Probably the greatest blessing which Art has conferred on mankind, results from the discovery of printing by Gutenberg. Prior to this discovery, Christianity was slow in reaching the hearts of the people, but, thanks to his feeble beginning, the art has been so perfected that millions of copies of the Bible have been printed, and by the aid of organization and co-operation, Christianity is being rapidly diffused throughout the world.

We read on history's printed page of the great sufferings and waste of human life, simply for glory, honor and wealth. Light and darkness struggled for superiority, and ultimately light broke asunder the heavy chains of ignorance and misery, and flooded the world with its brilliancy.

We are living in an age of vast and useful results. There are costly and elegant edifices, churches which point their spires heavenward, libraries with their thousands of volumes of choicest literature, which furnish healthy brain food to those in need, and gladden the hearth with poetry and song. Science has gone so far as to span rivers, and make steam our man-of-all-work, to drive our engines, move our machinery and make transportation so easy that you may be carried hundreds of miles a day, on either land or water, with unremitting speed. Electricity has been converted into our messenger to carry any communication we desire to the farthest ends of the earth with the rapidity of lightning—also to light up our homes with a power almost equal to that of the sun.

In education, the most surprising achievements have been the results of the discovery of a mode of teaching the deaf and dumb by signs. The honor of this is due to the Abbe de l'Epeé, who achieved it only a little over a hundred years ago. Now there are so many schools for the alleviation and amelioration of the condition of these unfortunate children of silence, that the remark once made by Lucretius of old, that

“To instruct the deaf, no art could ever reach,
No care improve them and no wisdom teach,”

has been proven erroneous to the core. Wise philosophers have devised methods and systems which have been so successful that the deaf and

dumb of this generation are looked upon as a class to be respected, and even admired, and large-hearted philanthropists have furnished the means and the plans whereby numbers may be brought together in well arranged buildings, and be surrounded by all the appliances necessary for the successful pursuit of knowledge.

Honorable Gentlemen of the Board of Directors:—We turn to you with grateful hearts. When our minds were clouded in ignorance, and our lives without a ray of hope, your kind thoughtfulness offered to us this happy home of silence. You have furnished us with loving, painstaking and enthusiastic teachers and officers, who have ever endeavored to make us contented and happy. Now, in spite of the impediment of deafness, we go forth into the wide world to act our part in the great battle of life, with minds trained to think and plan, and with hearts capable of appreciating what has been done for us. May God give you grace to continue on in your good work, and may you meet with your reward in Heaven. Farewell.

To the Principal, Professors and Teachers:—Words fail to give expression to our feelings of gratitude to you for your many years of hard and incessant labor in opening our minds to enjoy the sunshine of happiness and to take advantage of the many blessings bestowed upon us. The precepts which you have instilled into our youthful minds, will, in after years, be treasured in the minds of the Class of '84 as the most precious gift we have received on earth. It is sad to think that to-day's setting sun will be the last we shall ever witness as pupils at Fanwood, but upon you we hope it will daily rise for years on years, as new generations of pupils come and go, thus perpetuating your work and increasing the numbers of those who, when you are translated to the skies, shall rise and call you blessed. Farewell.

To the Superintendent and Officers of the Administrative and Industrial Departments:—We have to thank you for much comfort and happiness, and for your persistent efforts to cultivate in us good habits of life. You have conducted our mechanical education with such zealous care, that we take our final leave armed with one of the most important weapons in the battle of life—a good trade—a trade that we may depend upon for support, without being, in any sense, dependent upon charity. And you have inspired in our hearts a feeling of friendship, which will continue while life lasts. Farewell.

Graduating Classmates:—The time has come to sunder the ties created by long years ago of association. We have been under the same roof, have tasted of the same advantages which the State has so liberally placed before us, our feet have walked the same labyrinths and trodden the same beautiful grounds, and our eyes have drank in

the same beauties with which Nature has surrounded us with so lavish a hand, and to realize that our time to part has really come, seems almost impossible. To-morrow, hills and cities may divide us miles and miles apart, but the many pleasant recollections of our dear old school days can never be taken from our memory. We go forth with bodies and minds developed into manhood and womanhood, and arrayed to look the world in the face. Let us resolve that our lives shall be upright, that we will be honest to ourselves and others, that we will never perform any act that will stain the good name of our *Alma Mater*. Let us always stand up for her, and try to be living representatives who shall glorify her name. Whatever station in life we may fill, let our motto be—

“In good or ill, be faithful still,
Seek your reward on high ;
Let ‘ *Deo non fortuna* ’ be
Through life your battle cry.”—Farewell !

GEORGE S. PORTER.

In accordance with the programme the Special Reports on the examination of the High Classes were read by the examiners, and translated into signs by the Principal.

To the Board of Directors :

GENTLEMEN :—On Wednesday, June 18th, I examined the girls’ division of the High Class, under the care of Miss Montgomery. The examination in the use of the English language, in compositions upon the slate, and in combining a number of separate and isolated words into grammatical sentences, was very satisfactory, showing upon the part of most of the pupils an entire freedom from hackneyed forms and also from deaf-mute idioms.

Several pupils were examined in lip-reading and articulation, and exhibited commendable proficiency ; some spoke with much sweetness and grace, while others read the lips readily, showing that they had been carefully taught. A thorough examination was had in early English History, Moral Science and Arithmetic, and the books of composition, map-drawings, and so forth, were inspected. Exercises in the sign-language, gracefully rendered, closed the session. I append two specimens of the work performed, which are fair samples of the whole.

The teacher deserves great credit, and the pupils have evidently been industrious and attentive.

CHARLES A. STODDARD.

CARACTACUS.

The Emperor Claudius sent the Roman legions, under the command of Aulus Plautius to conquer the Britons. But they were entirely de-

feated, so the Emperor came himself to make sure of its conquest. The fierce, bold Britons, under a brave chief, Caractacus, tried to drive their enemies from their loved country. But he was taken prisoner by the treachery of their enemies, and carried in chains to the Imperial city of Rome. But Caractacus stood before the imperial throne with a calm dignity and a free born air. He walked through the crowded streets of Rome, where the long procession passed, showing much splendor and magnificence in the city, with a stately step. He cast a haughty glance over them, contrasting it with his humble cottage in the island so far away from him. His noble bearing excited the respect of his conquerors. He stood in the presence of the Emperor at the court. His last words were eloquent and impressive.

I make one beautiful quotation :

“ Now I have spoken, do thy will,
Be life or death my lot,
Since Britain's throne no more I fill,
To me it matters not.
My fame is clear, but on my fate,
Thy glory or thy shame must wait.”

It touched the heart of the emperor, and he was set at liberty.

GEORGIE DECKER.

ROBERT BURNS.

Robert Burns was a poet of whom his native land, Scotland, may well be proud. During his life, Fortune smiled on him very little, but her coldness only seems to have made him more tender-hearted than he otherwise might have been. Among the many beautiful poems, which he has written, is one to a mountain daisy, which shows what a tender heart he had. The way it came to be written, was this. One day, while ploughing a field, he saw a little Scotch daisy just about to be crushed by his plough. He wished to save it, but it was too late to turn back, and so the flower was crushed. The circumstance grieved him, and when he went home, he wrote the beautiful poem which begins :

“ Wee, modest, crimson tipp'd flower—
Thou'st met me in an evil hour :
To spare thee now is past my power—
Thou bonnie gem.”

In the poem, he likens the daisy's fate to that of many a human being crushed by the merciless wheel of Fortune. From the poem, we may get an idea of how much more watchful over us God must be, and how sorry He must be when he sees us about to be crushed by the wheel of sin, without noticing that his hand is held ready to lift us up.

This is a very beautiful poem, and ought to be appreciated by every one who reads it.

MAY MARTIN.

To the Board of Directors of the New York Institution for the Instruction of the Deaf and Dumb :

GENTLEMEN :—It gives me great pleasure to report that the pupils of the High Class of this Institution passed a most creditable examination in the various studies with which they had been occupied during the year.

In Natural Philosophy, the young men showed that they understood and had mastered the great principles and the natural laws which underlie that study. Their papers in many cases revealed much labor and care, reflecting high credit on both their own fidelity and their teacher's efficient methods of instruction.

Their examination in English History was commendable, showing that as far as they had gone they were deeply interested in that branch of human knowledge.

In Latin, Arithmetic, and Moral Philosophy, the class passed a fair examination, satisfying us that they really enjoyed their work, and that they highly appreciated all the labor and time which their teacher had expended upon their education.

Especially noteworthy was their examination in English Grammar and composition. Nothing surprised me more than the acquaintance which these young men exhibited with the fundamental principles of the English language. Some of the compositions which were read were exceedingly well thought out, and even elegantly expressed.

Besides all this, this class displayed in their answers to certain impromptu questions, that they were well informed as to the current topics of the day. It was gratifying to see how these deaf and mute students sympathized with all that was going on in the world around them, and even looked forward with eagerness to the time when they should be numbered among its workers. Certainly the Principal and the teacher of this class have every reason to be gratified with the progress which was made by its members during the year 1883 and 1884.

H. MORTON REED.

June 25, 1884.

The resolutions adopted by the Board of Directors were as follows :

PREAMBLE AND RESOLUTIONS.

WHEREAS, An examination of State pupils in the New York Institution for the Instruction of the Deaf and Dumb, has been held by the Committee appointed by the Board of Directors for that purpose ; and,

WHEREAS, The same has been found satisfactory with regard to the attainments and conduct of the following named pupils, viz :—

Frederick W. Baars,
Henry Buermann,
John Farrell,
Benjamin Friday,
Bernard Gallagher,
Louis Gehring,
George Gleason,
Robert H. Grant,
Herman Hanneman,
Henry J. Kennedy,
Charles J. Kinley,
Charles Kieseewetter,
Frederick W. Meinken,
George H. Morisse,
George W. Miller,
Robert Ogle,
William Reid,

William A. Ryckman,
Philip Sharkey,
Charles Sherran,
Amelia S. Ashmead,
Edith Averell,
Josephine Bologne,
Minnie Flint,
Martha A. Hamilton,
Annie M. Howard,
Hattie Haws,
Bertha Lamm,
Lina Landt,
Catherine Logue,
Nellie Long,
May Martin,
Margaret O'Keefe,
Alice Stockner,

who have completed, or within the coming academical year, will complete the term of five years, for which they were originally selected as State pupils by the Department of Public Instruction ; therefore,

Resolved, That the said pupils be, and they are hereby recommended to the Superintendent of Public Instruction, to be continued under instruction for three years, from and after the expiration of their several terms, agreeably to the existing provisions of law.

Resolved, That

Georgie Decker,

who has completed the full term authorized by law as a State pupil, and who has passed a satisfactory examination be, and she is, hereby, recommended to the Superintendent of Public Instruction to be selected for admission to the High Class.

Resolved, That a copy of the foregoing resolutions be forwarded to the Superintendent of Public Instruction for his action.

Resolved, That, in accordance with the provisions of the by-laws of the Institution, certificates of good scholarship and character be given to the following named pupils, who have successfully completed a course of five years' instruction, viz. :—

Frederick W. Baars,
Henry Buermann,
John Farrell,

William A. Ryckman,
Philip Sharkey,
Charles Sherran,

Benjamin Friday,
Bernard Gallagher,
Louis Gehring,
George Gleason,
Robert H. Grant,
Herman Hanneman,
Henry J. Kennedy,
Charles J. Kirley,
Frederick W. Meinken,
George W. Miller,
George H. Morrise,
Robert Ogle,
William Reid,

Amelia S. Ashmead,
Edith Averell,
Josephine Bologne,
Minnie Flint,
Martha A. Hamilton,
Annie M. Howard,
Hattie Haws,
Bertha Lamm,
Lina Landt,
Catherine Logue,
Nellie Long,
May Martin,
Margaret O'Keefe,

Alice Stockner.

Resolved, That the following named pupils, who have completed an eight years' course of instruction, are entitled to diplomas, and that the same be given to them, viz. :—

William H. Fosmire.
John Glass,
Henry Held,
Charles Jastram,
John Lloyd, Jr.,
Charles McCormick,

George W. Odell,
Phebe M. Butler,
Georgie Decker,
Katie Hunt,
Bertha Petersen,
Helen Regan.

Resolved, That diplomas of the highest grade be given to the following named pupils, who have completed a full course of three years study in the High Class, viz. :—

Walter L. Bingham,
Anthony Capelli,
Theodore I. Lounsbury,

George S. Porter,
Dennis Sullivan,
Arthur L. Thomas.

Resolved, That the Frizzell Prize, for unremitting effort and successful attainment, whether in language, signs, poetry or other studies embraced in the intermediate course, be awarded to May Martin.

Resolved, That the Cary Testimonial be awarded to Georgie Decker, for superiority in scholarship and character.

Resolved, That the testimonial to be conferred every year, in accordance with the terms of a bequest made by the late Harriet Stoner, upon such pupil in the Institution as has never acquired any knowledge of language through the ear, and, at the time of graduation shall be found to have attained the highest comparative excellence in character and study, be awarded to Arthur L. Thomas.

Resolved, That, from the interest of the bequest made to this Insti-

tution by the late Madame Jumel, the following prizes be awarded in the department of art :—

1. Prize, for oil painting, to Rachel Gantz.
2. Prize, for oil painting, to Dennis Sullivan.
3. Prize, for oil painting, to Emily A. Wells.
4. Prize, for oil painting, to May Martin.
5. Prize, for water colors, to Emily A. Wells.
6. Prize, for water colors, to Katie Hunt.
7. Prize, for water colors, to Frances C. Hawkins.
8. Prize, for water colors, to Carolina Petterson.
9. Prize, for painting on satin, to Emily A. Wells.
10. Prize, for pencil drawing, to Bertha Petersen.
11. Prize, for pencil drawing, so Ida M. Atwell.

Resolved, That the Dennistoun Prize, for superiority in English composition be awarded to George S. Porter.

Resolved, That the Holbrook Gold Medal, for highest excellence in all the studies pursued in the High Class, be awarded to Walter L. Bingham.

All of which is respectfully submitted.

JAMES O. SHELDON,
FREDERIC J. DE PEYSTER,
WILLIAM A. WHEELLOCK,
HEWLETT J. SCUDDER.

APPENDIX.

TERMS OF ADMISSION.

I. Pupils are provided for by the Institution in all respects, clothing and traveling expenses excepted, at the rate of \$300 per annum. Clothing will be furnished by the Institution, if desired, at an additional charge of fifty dollars. Payment is required semi-annually in advance. Day pupils will be received at a charge of \$100 per annum, including books and stationery, payable semi-annually in advance. The school year for day pupils shall be considered to commence on the first Wednesday in September, and end on the fourth Wednesday in June.

II. The regular time of admission is at the close of vacation, which extends from the fourth Wednesday in June to the first Wednesday in September. Pupils will be received at any time, when accompanied by the proper certificate of appointment.

III. No deduction will be made from annual charge in consequence of absence, on any account whatever, except sickness, nor for the vacation.

IV. Satisfactory security will be required for the punctual payment of bills and the suitable clothing of the pupils. In the case of pupils supported by their parents or friends, a bond will be required, the form of which is annexed to this report.

V. Applications regarding the admission or dismissal of pupils, and correspondence with reference to their support, health, and all matters other than those connected with education, must be addressed to the Superintendent.

Correspondence with reference to the education of the pupils, must be addressed to the Principal.

The post-office address of the Institution is Station M, New York.

VI. The selection of pupils over twelve years of age, to be supported at the public expense, is made by the Superintendent of Public Instruction, at Albany, to whom all communication on the subject must be addressed. Children of indigent parents, under twelve years and over six, may be admitted to the Institution by certificate of any overseer of the poor, or supervisor.

VII. The clothing of the pupils over twelve years of age, selected

and supported as *State* pupils, is chargeable to the county from which they come at the rate of \$30 per annum, agreeably to the provisions of Chapter 386, Laws of 1864.

VIII. Should objection exist to the admission of any individual, the board reserve to themselves or their officers a discretionary power to reject the application.

The above terms are to be understood as embracing the entire annual expense to which each pupil is subjected. Stationery and necessary school books are furnished by the Institution. No extra charge is made in case of sickness, for medical attendance, medicine, or other necessary provisions.

It is suggested to the friends of deaf-mute children, that the names of familiar objects may be taught them with comparative ease before their admission, and that the possession of such knowledge in any degree materially facilitates their subsequent advancement. To be able to write an easy hand, or at least to form letters with a pen, is likewise a qualification very desirable. In reference to this subject, it is recommended that the words which constitute writing lessons or *copies*, preparatory to admission, should be such as have been previously made intelligible to the learner.

In the case of each pupil entering the Institution, it is desirable to obtain written answers to the following questions. Particular attention to this subject is requested.

1. Name of pupil, in full.
2. Residence, town, county, State.
3. When was he born ?
4. Where was he born ?
5. Was he born deaf ?
6. At what age was hearing lost ?
7. By what disease or accident did he become deaf ?
8. Is the above the physician's opinion ?
9. Is the deafness total or partial ?
10. Have any attempts been made to remove the deafness, and if so, by whom, and with what result ?
11. Have any attempts been made to communicate instruction ?
12. Is there any ability to articulate or read the lips ?
13. Is he cleanly or otherwise in habits ?
14. Has he any acute disease or received any bodily injury ?
15. Is he laboring under any bodily infirmity, defective vision, eruption, malformation of limbs, glandular swelling, rupture, epilepsy, chorea, or palsy ?
16. Has he shown any signs of mental imbecility, idiocy, or insanity ?
17. Has he ever used ardent spirits, opium or tobacco ?

18. Has he ever been vaccinated or had the small pox ?
19. Has he had the scarlet fever ?
20. Has he had the measles ?
21. Has he had the mumps ?
22. Has he had the whooping cough ?
23. Has he shown marked taste for any particular trade or business, or been accustomed to regular employment ?
24. Are there any other case of deafness in the family, among relatives or ancestors ?
25. What is the name of the father ?
26. Where was he born ?
27. What is the name of the mother ?
28. Where was she born ?
29. What is the name and post-office address of the correspondent ?
30. What is the occupation of the father ?
31. Have either of the parents died ?
32. Has a second connection been formed by marriage ?
33. Where the parents related before marriage—*e.g.*, cousins ?
34. What are the names and ages of their children ?
35. What is the pecuniary condition of the parents ? Indigent ? Easy circumstances ? Affluent ?
36. Has he any special mark or peculiarity of appearance ?
37. Color, color of eyes, stature, color of hair.
38. By whom is this information given ?

By order of the Board of Directors.

ERASTUS BROOKS,

President.

THATCHER M. ADAMS,

Secretary.

LAWS AND BLANK FORMS

RELATING TO THE ADMISSION OF PUPILS.

CHAPTER 325, LAWS OF 1863.

As amended by chapter 213, entitled, “An Act relative to the care and education of deaf-mutes.”

PASSED APRIL 29, 1875.

The people of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. Whenever a deaf-mute child, under the age of twelve years, shall become a charge for its maintenance on any of the towns or counties of this State, or shall be liable to become such charge, it shall be the duty of the overseer of the poor of the town, or of the supervisors of such county, to place such child in the New York Institution for the Deaf and Dumb, or in the Institution for the Improved Instruction of Deaf-Mutes, or in the Le Couteulx St. Mary's Institution for the Improved Instruction of Deaf-Mutes in the city of Buffalo, or in the Central New York Institution for Deaf-mutes in the city of Rome, or in any institution of the State for the education of deaf-mutes.

§ 2. Any parent, guardian or friend of a deaf-mute child, within this State, over the age of six years and under the age of twelve years, may make application to the overseer of the poor of any town, or to any supervisor of the county where such child may be, showing by satisfactory affidavit or other proof, that the health, morals or comfort of such child may be endangered, or not properly cared for, and thereupon it shall be the duty of such overseer or supervisor to place such child in the New York Institution for the Deaf and Dumb, or the Institution for the Improved Instruction of Deaf-Mutes, or in the Le Couteulx St. Mary's Institution for the Improved Instruction of Deaf-Mutes in the city of Buffalo, or in the Central New York Institution for Deaf-Mutes in the city of Rome, or in any institution in the State for the education of deaf-mutes.

§ 3. The children placed in said institutions, in pursuance of the foregoing section, shall be maintained therein at the expense of the county from whence they came, provided that such expense shall not exceed three hundred dollars per year, until they attain the age of twelve years, unless the directors of the institution to which a child

has been sent shall find that such child is not a proper subject to remain in said institution.

§ 4. The expenses for the board, tuition and clothing, for such deaf-mute children, placed as aforesaid in said institution, not exceeding the amount of three hundred dollars per year, above allowed, shall be raised and collected as are other expenses of the county from which such children shall be received; and the bills therefor properly authenticated by the principal, or one of the officers of the institution, shall be paid to said institution by the said county; and its county treasurer or chamberlain, as the case may be, is hereby directed to pay the same on presentation, so that the amount thereof may be borne by the proper county.

§ 5. This act shall take effect immediately.

EXTRACT FROM CHAPTER 555, LAWS OF 1864, TITLE 1, SECTIONS 9 and 10 (As amended by chapter 213, entitled "An act to provide for the care and education of deaf-mutes").

Passed April 29, 1875.

§ 6. Every person resident in this State, between twelve and twenty-five years of age, whose parent or parents, or if an orphan, whose nearest friend shall have been resident in this State for the three years preceding, and who may make application for that purpose, shall be received, if deaf and dumb, into one of the following named institutions, viz.: 'The New York Institution for the Deaf and Dumb, the New York Institution for the Improved Instruction of Deaf-Mutes, the Le Contoulx St. Mary's Institution for the Improved Instruction of Deaf-Mutes in the city of Buffalo, or in the Central New York Institution for Deaf-Mutes in the city of Rome, or in any institution in this State for the education of deaf-mutes, *provided his or her application be approved by the Superintendent of Public Instruction.* The pupils so sent to either of the institutions aforesaid shall be provided with board, lodging and tuition, and the directors of said institution shall receive, for each pupil so provided for, the sum of three hundred dollars per annum, in quarterly payments, to be paid by the Treasurer of the State, on the warrant of the Comptroller, to the treasurer of said institution, on his presenting a bill showing the actual time and number of such pupils attending the institution, and which bill shall be signed by the president and secretary of the institution, and be verified by their oaths.

The regular term of instruction for such pupils shall be five years; but the Superintendent of Public Instruction may, in his discretion, extend the term of any pupil for a period not exceeding three years.

The pupils provided for in this and the preceding section of this title shall be designated State pupils, and all the existing provisions of law applicable to State pupils now in said institution shall apply to pupils herein provided for.

APPLICATION

FOR THE ADMISSION OF COUNTY PUPILS.

To be made to and retained by the Supervisor or Overseer of the Poor.

STATE OF NEW YORK, } ss. :
County of ,

.....of the town of.....in said county, hereby certifies that he is the.....of....., a deaf-mute child, residing in said town, and who was born on the....day of18 , and that in consequence of the want of education, the health, morals and comfort of said child may be endangered or not properly cared for ; and the undersigned hereby makes application for the said child to be placed in the New York Institution for the Instruction of the Deaf and Dumb, for support and education, pursuant to chapter 325 of the Laws of 1863, as amended by chapter 213 of the Laws of 1875.

.....

Dated.....18 .

CERTIFICATE.

To be granted by Supervisor or Overseer of the Poor and sent to the Institution.

STATE OF NEW YORK, } ss. :
County of ,

I have this day selected.....of the town of.....county of....., son [or daughter] of.....who was born on the.....day of.....18 , as a county pupil in the New York Institution for the Instruction of the Deaf and Dumb, from the.....day of.....18 , to the.....day of18 , (he being then twelve years of age), to be educated and supported therein, during that period, at the expense of the county

of....., in conformity with the provisions of chapter 325, Laws of 1863, as amended by chapter 213 of the Laws of 1875.

..... }
of the town of
..... }

Dated.....18 .

FORM OF APPLICATION.

To be sent to the Superintendent of Public Instruction, Albany, in case of candidates for admission twelve years of age and over.

The undersigned....., of the town of....., in the county of....., do hereby certify that.....of said town, is deaf and dumb. The said.....was.....years of age on the....day of.....18 ; is of good moral character, free from disease, and possesses intellectual faculties capable of instruction.

The names of the parents of the said.....are..... ; and the said parents have resided in the State for the last three years. They respectfully apply for the appointment of said.....as a State pupil in the New York Institution for the Instruction of the Deaf and Dumb ; and I would recommend the application to the favorable consideration of the Superintendent of Public Instruction. The parents are unable to provide the said.....with clothing.*

Dated.....18 .

..... }
of the town of
..... }

To the Superintendent of Public Instruction, Albany.

* In case the parents are able to provide clothing, the above sentence should be erased.

FORM OF BOND.

Know all men by these presents, that we.....of
in the county of.....and State
 of....., and.....of.....
 in the county of.....and State of.....are
 held and firmly bound unto....., the treasurer of the New
 York Institution for the Instruction of the Deaf and Dumb, and his
 successors in office in the sum of.....dollars, for
 which payment, well and truly to be made, we bind ourselves, our
 heirs, executors, and administrators, jointly and severally, firmly by
 these presents.

Sealed with our seals. Dated at.....this.....
 day of.....A. D....

Whereas.....of.....in the county
 of.....and State of.....has
 been or is about to be admitted as a pupil in the Institution aforesaid ;

Now, therefore, the condition of this obligation is such, that if
 the above named obligors shall well and truly pay, during the con-
 tinuance of the said....., as such pupil, the sum of
 three hundred dollars per annum for....board and tuition, semi-
 annually in advance, and shall also pay in advance the sum of fifty
 dollars a year for clothing, and shall also pay on demand all sums
 charged to the account of said.....for money or necessary
 articles furnished to said.....; and shall also pay interest
 on each bill, from and after the time it shall become due, then this
 obligation to be void, otherwise to remain in full force and virtue.

Sealed and delivered in)
 presence of }

..... [L. S.]
 [L. S.]

SITUATION OF THE INSTITUTION.

The grounds occupied by the Institution comprise about twenty-six acres, and are located upon the banks of the Hudson River at Washington Heights, between One Hundred and Sixty-second and One Hundred and Sixty-fifth streets. The entrance to the grounds is at the corner of Tenth avenue and One Hundred and Sixty-second street, about nine miles from the City Hall.

The Institution can be reached by three lines of public conveyance from the city :

1. By the Sixth or Ninth Avenue Elevated railroads to One Hundred and Fifty-fifth street.
2. By the Third Avenue Elevated railroad to Harlem, and thence by crosstown railroad at One Hundred and Twenty-fifth street, and Elevated railroad to One Hundred and Fifty-fifth street.
3. By the way trains on the Hudson River Railway, from Thirtieth street, stopping at One Hundred and Fifty-second street. The Institution is about half a mile north of this station.

PUBLIC MEETING.

While the institution is opened to visitors during the daily sessions of the school, there are two occasions of more than ordinary interest when public exercises are held in the chapel, viz.: At the annual election of officers and directors, on the third Tuesday of May, and at the close of the academical term, on the fourth Wednesday of June, answering to Commencement in other seminaries of learning. The members of the Institution are earnestly requested to attend on these occasions, notice of which will be given in the newspapers.

FORM OF BEQUEST.

I give and bequeath to the "The New York Institution for the Instruction of the Deaf and Dumb," incorporated by the Legislature of New York in the year 1817, the sum of.....dollars.

*This Institution holds in perpetual and grateful remembrance
the names of its*

MUNIFICENT BENEFACTORS.

EPHRAIM HOLBROOK,	JOHN ALSTYNE,
WILLIAM DENNISTOUN,	SETH GROSVENOR,
ELIZABETH DEMILT,	SIMON V. SICKLES,
MADAME ELIZA JUMEL,	THOMAS C. CHARDAVOYNE,
SARAH STAKE,	JAMES ANDERSON,
SARAH DEMILT,	THOMAS FRIZZELL THOMPSON,
JOHN NOBLE,	THOMAS RILEY,
THOMAS EGGLESTON,	JAMES N. COBB,
SAMUEL S. HOWLAND,	ELIZABETH GELSTON,
THOMAS EDDY,	ROBERT C. GOODHUE,
BENJ. F. WHEELWRIGHT,	DANIEL MARLEY.
MARIA M. HOBBY,	ELIZA MOTT,
BENJAMIN ABRAMS,	SAMUEL WILLETTS.

STATE OF NEW YORK.

No. 23.

IN ASSEMBLY,

JANUARY 15, 1885.

THIRTY-EIGHTH ANNUAL REPORT

OF THE

TRUSTEES OF THE STATE MUSEUM OF NATURAL HISTORY.

OFFICE OF THE REGENTS, *January 8, 1885.*

To the Legislature of the State of New York :

I have the honor to transmit herewith the thirty-eighth annual report of the Regents of the University as Trustees of the New York State Museum of Natural History, as required by law.

H. R. PIERSON,
Chancellor.

REPORT.

To the Legislature of the State of New York :

The Regents of the University, as Trustees of the State Museum of Natural History, submit, as required by law, their thirty-eighth annual report.

With respect to the operations of the Museum, and the measures taken for its increase, the Trustees refer to the report of the Director, which is herewith transmitted. In like manner the reports which are appended of the State Entomologist and State Botanist will give in detail the important additions made to the collections in their respective departments, and the work carried forward by them in the scientific investigation of subjects committed to them. By the liberality of the Legislature small appropriations have been made for the expenses of both the Entomologist and Botanist in the prosecution of their researches, and the collection and preservation of specimens for the Museum. This will enable these officers to conduct their departments with greater efficiency than before.

In connection with the State exhibit at the New Orleans Exposition, the Director of the Museum prepared an interesting collection of material to be sent thither. The limited time allowed for the purpose, and the want of means to collect and prepare what would have been desirable, made the collection less complete than might have been wished. It contains, however, some things of unique value and interest, for a full account of which the Trustees refer to the report of the Director.

The Trustees are gratified to be able to announce to the Legislature that the several reports of the State Museum, whose publication for various causes has been delayed, some of them for several years, have all been printed and issued during the past year. This list includes the thirty-third, which was presented to the Legislature in 1880, down to and including the thirty-seventh, which was presented in 1884 ; in all, five reports. The Trustees are glad to feel assured that under the new law passed in 1883, which provides for the scientific printing of the Museum, to be done under the direct care of the Museum staff, will prevent a recurrence of such an accumulation of material. Under this law the scientific papers prepared by the Museum staff will be issued whenever ready as Museum bulletins. In all cases of scientific publications

the embarrassment and delay is occasioned by the cost and time required for the preparation of the illustrations. And it is impossible to procure such printing done with satisfaction under such a system of public printing as is provided by law for the legislative reports. The increased appropriation now provided for the Museum will enable the Trustees to print in appropriate style whatever the scientific workers of the Museum may prepare.

The Trustees announce to the Legislature that under the provisions of the law passed in 1883 the first of the new volumes on Palæontology was published last May. It is on the Lamellibranchiata, and contains descriptions and figures of the Monomyaria of the Upper Helderberg, Hamilton and Chemung groups. It is a volume of xvii and 268 pages, and is illustrated with forty-five plates. Another volume in this series is to be issued during 1885, which will be a continuation of the Lamellibranchiata. It is believed by the Trustees that under the provisions of this law this great and monumental work will be completed within the time designated.

The fitting up of the State Hall for the Museum, as provided by the law of 1883, has been necessarily delayed by the continued occupation of the building by the State officers. It may still require some time for the removal of all the departments of the government into the new Capitol, and until this is accomplished the plans of the Trustees for arranging the building cannot be carried out. In the mean time, however, the importance of providing fire-proof storage for the more valuable treasures of the Museum has led them to make a beginning. The east side of the third story of the building has been vacated, as well as several rooms in the basement. Accordingly the Trustees procured a careful measurement of the building, and a study of the means by which it might be adapted to the future wants of the Museum. Mr. Perry, Commissioner of the Capitol, kindly and gratuitously made the plans of the building and advised in reference to the repairs and changes which the building would require to adapt it to the purposes intended. Professor Hall, with the aid of Professor J. C. Smock, prepared a carefully devised scheme for the allotment of the space in the building. It is the purpose of the Trustees to carry out this plan and this allotment as rapidly as the room is vacated. The available space in the third story has been fitted up with drawers for the working and storage rooms of the future Museum, and the removal of the material to these rooms has been begun and will be carried forward as fast as possible.

It was found by the architect, when work on the rooms was begun, that the building itself was in need of material repairs. The roof required a thorough overhauling, and the chimneys and walls, and all the floors, not only in the rooms but the corridors, required to be relaid.

For the use of the building in the manner proposed it will require many additional changes. An elevator in the building is absolutely necessary, and some comprehensive system of heating by steam must be introduced. These changes and repairs in the building itself were not contemplated in the original law. The appropriation was intended and is probably sufficient for the fitting up with cases and furniture of the entire building. But the Trustees will be compelled to ask for the means to put the building itself in proper order for the full occupancy of the Museum.

The Trustees commend this great public institution to the continued liberality of the Legislature. It has been the work of many able men, and represents in a peculiar and noble sense the education, the culture, and the grandeur of the State. The Trustees are prepared to push forward the work of making this Museum, even more than now, useful to the State. They have plans for making it, in a true sense, a great educational center, from which influences shall reach every college and school in the State. These plans await the settled occupancy of a suitable and safe home for its extensive collections.

The Museum staff, as at present constituted, consists of James Hall, Director and State Geologist ; J. A. Lintner, State Entomologist ; Charles H. Peck, State Botanist ; James W. Hall, assistant in charge of the zoölogical collections ; John Gebhard, special assistant and guide. Charles E. Beecher has also been employed upon the work of the Museum in part, his services being otherwise given to the preparation of the Palæontology. It is proposed to add to this list another principal assistant, who shall supervise the removal of the Museum, and, as far as possible, leave the Director to give his time and strength to the preparation of his great work on Palæontology.

Respectfully submitted.

H. R. PIERSON,

Chancellor.

REPORT OF THE DIRECTOR.

ALBANY, *January 2, 1885.*

To the Honorable the Board of Regents of the University of the State of New York :

GENTLEMEN — I beg leave to communicate herewith the annual report upon the State Museum of Natural History, for the year 1884 (being the thirty-eighth report in the consecutive order) ; including a statement of the condition of the collections in the several departments, and the additions made thereto, a general account of the work done, and an enumeration of the publications made during the past year.

Since presenting my last report, the thirty-fifth, thirty-sixth and thirty-seventh Museum reports have all been issued, and also the reports of the State Geologist for the years 1882, 1883 and 1884, have all been printed and are ready for delivery. Some of these reports have been a long time awaiting publication, greatly to our disadvantage.

In order to complete the series of State Museum reports, we now require the reprinting of the thirty-second report, which exists only as a legislative document. As I have heretofore stated, there was no legislative order for the usual number of extra copies of that report, and the same was published without the map and plates which accompanied the report in its presentation to the Legislature. No copies of this report have ever been in the hands of the Regents, or of the Director, for public distribution, and it is very important that it should be republished without delay.

In the thirty-fifth report I have communicated a statement of the distribution of certain collections of fossils and minerals to colleges, normal schools, high schools and academies up to the date of that report. This statement does not include many smaller collections, of which we have no record. In the same report, I furnished a list of species of fossils used in the illustration of Vol. V, Part II, of the Palæontology of New York ; to this I shall have occasion to refer more particularly. I also presented a catalogue of the Unionidæ of the Gould collection, of the New York State collection, and of the general collections of the Museum ; also of the species of land shells of the United States possessed by the Museum. To these was added a list of the species of shells presented to the Museum by the late Dr. James Lewis, of Mohawk, N. Y. These catalogues may be of sufficient interest to have them printed

separately from the report, both for use in the Museum and for distribution to collectors and others.

In the same report, Mr. George B. Simpson contributed an important paper on the Anatomy and Physiology of *Anodonta fluviatilis*. A preliminary Notice, Part I,* of the LAMELLIBRANCHIATA, *Monomyaria* has been published in the same report, in order both to give a wider circulation of the specific descriptions, and to fulfil a promise made many years since in the preliminary Notice, No. II, published in 1870.

The descriptions of corals (here published with illustrations) were issued in advance in pamphlet form in 1882.

With the thirty-fifth report, in 1882, I communicated a preliminary notice of some fossil reticulate sponges of the family Dictyospongidae. The same, accompanied by illustrations, was read before the American Association for the Advancement of Science, at the Montreal meeting in 1882, with a discussion of the relations of Dictyophyton, Phragmodictya, and similar forms with Uphantænia. The investigation was at that time incomplete, and it became impossible to finish the work in the time required for the publication of the report. The plates now published were lithographed in 1882, and a partial synopsis of the genera and species is given in this report. In the mean time the drawings, beyond those already lithographed, have been completed, the whole making about twenty quarto plates. The descriptions, amounting to about ninety pages of manuscript, were finished in April, 1884. The whole now awaits the determination of the Board of the Regents as to its mode of publication. This manuscript, together with the figures arranged on cards, will be laid before you.

A list of the titles of papers in these several reports named, and of the plates illustrating the same, will be appended to this report.

CURRENT WORK OF THE MUSEUM.

The work of the Museum, in the care and preservation of the collections already arranged in the cases and drawers, has been carried on as usual.

In the Zoölogical collection, the stuffed skins of mammals and birds have been cleaned and rearranged. The jars of alcoholic specimens have been cleaned and refilled. The collection of skulls and skeletons of mammals have been removed from their cases, cleaned and rearranged. and also the stuffed skins and skeletons of fishes. The cases of Echinodermata and Radiata have been cleaned and the collections rearranged. The Historical and Antiquarian collections have also received the necessary attention for their preservation.

The work of cutting and preparing translucent sections of corals and

* This paper was communicated with a previous report but afterward withdrawn and again communicated with the Thirty-fifth Report.

other fossils, and the cutting, shaping and polishing of specimens, has been continued as in former years. Our facilities for accomplishing this work have been brought into requisition, in preparing specimens for the New York State exhibit in the New Orleans Industrial Exposition. During the past year, 683 sections have been cut and polished, besides the cutting and polishing of many larger specimens.

The records of additions to the library, and to the collections, are appended to this report. The examination and partial analysis of numerous specimens of rocks, ores or other minerals, of which written or oral information has been given, regarding their character and value, has occupied considerable time. This information has been given from an inspection of the specimens or testing for certain metals which they were supposed to contain. This work has been done, with a view of benefiting the parties interested, and generally with a hope of saving them the expenditure of money in analysis of specimens which every mineralogist or geologist knows to be of no practical or economic value.

The Emmons collection of crystallized minerals has been cleaned, packed in boxes, and taken to the State Hall for arrangement in the cases in the south-east room of the upper story, to remain until the rooms assigned to the entire mineralogical collection shall be prepared for its reception.

The report of the Botanist will show you that in original research an unusual amount of work has been done in his department.

The preparation and study of new material has been going on in the palæontological department, especially among the Corals, the Bryozoans and the Lamellibranchiata; likewise the study of the reticulate sponges preparatory to publication. Since the first part of the fifth volume of Palæontology — Lamellibranchiata I — was published, the collections of species there described, belonging to the Museum, have been carefully labeled and arranged in drawers. This portion of the collection is now ready for the selection of the Museum series, and the distribution of duplicates to the colleges and academies.

Some progress has been made in the preparation and study of the microscopic sections of the fossil Brachiopoda. The thirty-fifth and thirty-sixth Museum reports contain plates illustrating some of the work done. During the year about 200 microscopic sections were made, and twenty-four photographic negatives prepared. A well-equipped photographic dark room has been constructed in one of the working-rooms of the State Hall, and during the coming year it is proposed to devote some time to the furtherance of these investigations.

Early in the last year many boxes of fossils were packed with the intention of storing them in the basement of the State Hall, but while we had not entire possession of the building, and until we could come into

complete control of the various rooms, it would have been unwise to use them for the storage of valuable specimens. The specimens to which I refer as prepared for removal, consist principally of large corals from the Upper Helderberg group, together with smaller specimens occupying several hundred drawers. It is hoped that during the present year the entire collection of fossil corals may be removed to the new quarters provided for them in the State Hall, and be properly arranged in drawers.

During the months of October, November and December, much time was spent by the Museum staff in preparing material for the State exhibit at the New Orleans Exposition. Owing to the limited time for preparation, and the small fund available, the exhibit is not as full nor as important as we could wish, still a fair display of the natural resources of New York is presented. Some of the leading features of the exhibit are as follows:

A geological column composed of large blocks of stone, representing the character and succession of the several rock formations of the State.

A collection of fossils containing the representative faunas of the New York palæozoic formations, comprising 323 entries, accompanied by a duplicate collection of 168 entries.

The principal building and ornamental stones of the State, the iron ores, and economic minerals were largely represented.

Copies of the lithographed plates of the Palæontology of New York, illustrating several classes of fossils, together with microscopic sections of the shells of Brachiopoda, and photo-micrographs of the same.

COLLECTIONS IN THE FIELD.

Considerable field-work became necessary for procuring the material destined for the New Orleans Exposition, and the Museum will profit by the accession of specimens collected, and by donations from parties who also contributed liberally to the Exposition material. These will be enumerated and due credit given to the contributors.

Five boxes of fossils were collected from the Chemung and Waverly groups of Warren county, Pennsylvania. These rocks are adjoining and a continuation of the New York formations, also a series of rock specimens to represent a section at that locality, from data furnished by Mr. F. A. Randall, and supplemented by the observations of Mr. C. E. Beecher. A geological section has been drawn to the scale of one inch to 100 feet, representing 1,900 feet of strata. The lower 1,100 feet show the rocks passed through in drilling for petroleum. This work is valuable in determining the probable horizon of the Panama conglomerate and its relations to the oil-bearing sands.

A collection of geological specimens was made from the Oneida con-

glomerate and Clinton group, near Ilion, N. Y. These will be useful in the Museum exchanges.

Two boxes of fossils and several large blocks of coralline limestone were obtained from Schoharie, and will afford valuable material for translucent sections of corals.

The additions to the various departments of the Museum, during the year 1884, will be found recorded in detail in the lists appended.

In the Botanical department, 151 species of plants have been received from twenty-three contributors. The State Botanist has collected 192 species of plants, of which 116 are new to the herbarium.

The Zoölogical collections have received specimens from four contributors. The principal addition is a collection of sixteen species of *Achatinella*, from Dr. W. D. Hartman, of West Chester, Pennsylvania.

The collections in Geology and Palæontology have received by donation sixteen specimens from six contributors, and by collection five boxes of fossils from Warren county, Pennsylvania; one box of fossils from Troy, N. Y., two boxes of Oneida conglomerate, Clinton iron ore and Clinton gray sandstone from Ilion, N. Y., two boxes of fossil corals from the coralline limestone of Schoharie, one box of fossils from Cortland, and nineteen large blocks of stone representing the Utica slate, Hudson river group, Tentaculite limestone, and Oriskany sandstone. Eleven specimens have been added by purchase, among which are seven very large and perfect examples of fossil reticulate sponges, from the Chemung group of Steuben county.

By donation and exchange, the library has received eighty-three books and pamphlets; ten volumes have been added by purchase.

The preparation for working and storage rooms in the upper story of the State Hall is so far advanced that some of the rooms may be occupied at once, and with the concurrence of the Secretary of the Board of Regents, I have already commenced to remove some of the valuable collections from the present Museum building to these rooms, which offer almost perfect security against fire. In this connection, and in regard to other collections of especial value now remaining in the present Museum building, I beg leave to call your attention to a recommendation made in my last report* regarding the removal of such as these from the present unsafe Museum building to the State Hall, where they may be temporarily arranged or otherwise provided for. Should this proposition meet the approval of the Trustees, I would ask for authority to transfer the same as early as practicable.

Should it be necessary to remove some of the material now on public exhibition in the cases, I would suggest that other specimens be substituted from the duplicate collections. Nearly all the material which

* Thirty-seventh Report on the State Museum of Natural History, page 23.

I have suggested to be removed may be placed in drawers, and the remainder may be provided with floor cases, as now arranged in the Museum.

The upper story of the State Hall contains nine large rooms, of which five are situated to the east of the large corridor and are now in the possession of the Regents. These five rooms have been numbered for convenience 1, 3, 5, 7 and 9, beginning at the north-east corner of the building. The rooms with even numbers are on the west side of the corridor and are now used for the storage of State documents, except room No. 2, which contains cases and furniture, and lithographed plates belonging to the State Museum.

Room No. 1, on the north-east corner, is designed as a library and study for the Director. It is furnished with book-cases, desks, etc.

Room No. 3, adjacent to the preceding, contains thirty ranges of drawers, two and one-half inches deep, with twenty-four drawers in each range, making in all, 720 drawers. It is intended to use this room for the reception of collections which are being studied and described for the Palæontology of New York. The cases and drawers in this and the other rooms are finished in oak and are very substantial and elegant in appearance.

No. 5 has twenty ranges of drawers with twenty-four drawers in each range. This room was without light and used as a store-room for stoves, boxes, etc. A large sky-light has been put in which converts it into a well-lighted and useful room. A photographic dark-room has also been constructed in the south-east corner of this room, with complete arrangements for pursuing the work of photo-micrography already begun. The cases of drawers in No. 5 are designed for the collection of fossil corals of the Hamilton group.

Room No. 7 is especially adapted for the large collection of the fossil corals of the upper Helderberg group, and has twenty-three ranges of drawers three inches in depth, and seven ranges of drawers four inches in depth.

No. 9, on the south-east corner of the building, is a large, well-lighted room, and is intended to be used as a working-room for the arrangement and distribution of collections. It is furnished with cases along one side containing 288 drawers.

The rooms as now finished are arranged to contain 2,067 drawers, distributed as follows :

Room No. 3 will contain 720 drawers.

Room No. 5 will contain 480 drawers.

Room No. 7 will contain 579 drawers.

Room No. 9 will contain 288 drawers.

At the time of present writing there are 740 drawers fitted in the cases and ready for use.

When the present and proposed arrangements have been completed, the Museum will have the most convenient and ample working rooms of any similar institution in the country.

The Gould types of shells, and some other rare forms may be transferred to a safe position in the State Hall, and unless the Museum were to engage in some special biological work, there appears no reason to recommend the appointment of any special assistant in the department of Zoölogy.

Since the State Museum of Natural History was placed in charge of the present Director, workers in this department have increased more than a hundred fold, and a very large number of them are afforded facilities for investigation, from the various organizations sustained either by the general government or by richly endowed institutions, such as our limited means could never afford.

Professor A. Agassiz, the Director of the Museum of Comparative Zoölogy at Cambridge, presents in his last report some very important considerations regarding the management of museums and their collections. In the course of his discussions he remarks that "since the foundation of this Museum the conditions for scientific research in this country have greatly changed. The general government has now undertaken, in connection with the United States Coast and Geodetic Survey, with the Geological Survey, with the National Museum, and with the United States Fish Commission, an amount of scientific investigation in various directions which makes it a mere waste of time for those not officially connected with these government establishments to undertake certain lines of work. Recognizing this, it becomes at once apparent that it is a mere waste of time and money for us to continue accumulations of collections which will most certainly be duplicated at Washington or New York, and that, beyond a very limited appeal to the public in the collections placed on exhibition, we should expend our resources only in the direction of fostering such original work as may most efficiently be conducted by the professors holding endowed chairs in our University."

In this matter I would advise that the present collections be rearranged and relabeled, and that the only special efforts in this department be directed toward a full representation of the Zoölogy of the State of New York, in its principal divisions, which could be done at a moderate cost, and thus leave the resources of the Museum to be used in sustaining those departments wherever original research is required to be carried on.

Since we have dispensed with the services of a special assistant in the department of Zoölogy, and the services of a special taxidermist, the collection have been cared for and preserved in as good condition as

formerly. The additions made are not large, and there appears no good reason for incurring much expense in that direction. So long as the collections can be preserved from the ordinary destructive agencies by the present Museum staff, I see no reason for appointing special assistants to perform the work. Were we even to look upon the matter in its worst possible aspect, the salary of a special assistant would, in five years, be sufficient to replace the entire collection with fresh specimens. Of the stuffed skins, none can be regarded as types, or of special historic interest, and only a few of them are rare and difficult to be procured. I would therefore recommend that the special work which has heretofore devolved upon these assistants be henceforth performed, as in the past two years, by the assistant in charge of the Zoölogical department, with such temporary aid as he may require from time to time.

LIST OF THE SEPARATE SCIENTIFIC PAPERS CONTAINED IN THE THIRTY-FIFTH, THIRTY-SIXTH AND THIRTY-SEVENTH REPORTS OF THE STATE MUSEUM, AND IN THE REPORTS OF THE STATE GEOLOGIST FOR THE YEARS 1882, 1883 AND 1884, AS PUBLISHED DURING THE YEAR 1884.

1. Notice of the machinery and methods of cutting specimens of rocks and fossils at the New York State Museum of Natural History. By James W. Hall, 3 pp. and 2 plates.
2. Report of the State Botanist for 1882. Chas. H. Peck, 40 pp.
3. A list of the Rhizopoda found in the vicinity of Albany, N. Y. By D. N. DeTarr, 3 pp.
4. Anatomy and Physiology of *Anodonta fluviatilis*. By George B. Simpson, 23 pp. and 11 plates.
5. The Aboriginal Work on Bluff Point, Yates county, N. Y. By S. Hart Wright, 2 pp. and 1 plate.
6. Notes on the Geology of Yates county, N. Y. By Berlin H. Wright, 12 pp., 1 plate and map of Yates county.
7. Descriptions of new species of Fossils from the Trenton group of New York. By C. D. Walcott, 8 pp. and 1 plate.
8. Preliminary Notice of the Lamellibranchiate Shells of the upper Helderberg, Hamilton and Chemung groups. By James Hall, 199 pp.
9. Descriptions of Fossil Corals from the Niagara and upper Helderberg groups. By James Hall, 58 pp. and 8 plates.
10. Descriptions of the species of Fossil Reticulate Sponges, constituting the Family Dictyospongidae. By James Hall, 17 pp. and 4 plates.

11. Illustrations of the structure of Strophomenoid Brachiopoda. By James Hall, 1 plate and explanation.
12. Report of the Botanist for 1883. Chas. H. Peck, 20 pp.
13. Some Abnormal and Pathologic Forms of Fresh-Water Shells from the vicinity of Albany, N. Y. By Chas. E. Beecher, 5 pp. and 2 plates.
14. Bryozoa (Fenestellidæ) of the Hamilton group. By James Hall, 16 pp.
15. On the Structure of the Shell in the Genus Orthis. By James Hall, 3 pp. and 2 plates.
16. Description of a new species of Styлонurus from the Catskill group. By James Hall, 2 pp. and 1 plate.
17. List of species of Fossils from an exposure of the Utica Slate and Associated Rocks, within the limits of the city of Albany. By C. E. Beecher, 1 p.
18. A Catalogue of the Published Works of James Hall, LL. D., 1836 to 1882. Communicated by Dr. David Murray, 16 pp.
19. A description of *Cryptozoon proliferum*. By James Hall, 1 plate and page of description and explanation.
20. Report of the State Entomologist for 1883. J. A. Lintner, 14 pp.
21. Report of the State Botanist for 1883. Chas. A. Peck.

The following papers are from the Reports of the State Geologist for, 1882-1884.

22. Classification of the Lamellibranchiata. By James Hall, 8 pp. and 11 plates.
23. Discussion upon the manner of growth, variation of forms and characters of the Genus Fenestella, and its relations to Hemitrypa, Polypora, Retepora, Cryptopora, etc. By James Hall, 12 pp.
24. Fossil Corals and Bryozoans of the lower Helderberg group and Fossil Bryozoans of the upper Helderberg group. By James Hall, 33 plates and explanations. Palæontology of New York.
25. Brachiopoda, plates and explanations. By James Hall, 28 plates and explanations. Palæontology of New York.
26. Bryozoans of the Hamilton group. By James Hall.

JAMES HALL,

Director of the State Museum of Natural History

ADDITIONS TO THE STATE MUSEUM DURING THE YEAR 1884.

APPENDIX A.

I. Botanical.

Specimens of *Trillium grandiflorum*, Salisb. var. *variegatum*, from Mrs. S. M. Rust, Syracuse, N. Y.

Specimens of *Trillium grandiflorum*, Salisb. var. *variegatum*, from Mrs. L. L. Goodrich, Syracuse, N. Y.

Specimens of *Juncus trifidus* L., from Prof. N. L. Britton, New York, N. Y.

Specimens of *Ledum latifolium* Ait., and *Andromeda polifolia* L., from Prof. O. R. Willis, White Plains, N. Y.

Specimens of eight species of fungi, from Prof. W. G. Farlow, Cambridge, Mass.

Specimens of three species of flowering plants and one entomophilous fungus, from Rev. J. L. Zabriskie, Nyack, N. Y.

Specimens of *Chondrioderma Michellii*, Lib. var. *sessile* Rostf., from Harold Wingate, Philadelphia, Pa.

Specimens of three species of Myxomycetous fungi, from George A. Rex, M. D., Philadelphia, Pa.

Specimens of three species of flowering plants, one of them, *Hydrangea arborescens* L., new to the herbarium, from E. A. Burt, Albany, N. Y.

Specimens of four species of flowering plants, from H. C. Gordinier, Troy, N. Y.

Specimens of *Castilleja coccinea*, Spreng., from D. Byron Waite, Springwater, N. Y.

Specimens of four species of flowering plants, one of them, *Listera convallarioides*, Hook., new to the State, and another, the very rare *Habenaria rotundifolia*, Rich., from Romeyn B. Hough, Lowville, N. Y.

Specimens of *Orontium aquaticum* L. and *Polygonatum biflorum* Ell., from J. D. Greenslete, Broadalbin, N. Y.

A specimen of *Lycoperdon giganteum* Oakes, from H. Andrews, Albany, N. Y.

A fine specimen of *Lycoperdon giganteum* Batsch., the giant puff-ball, from John D. Parsons, Albany, N. Y.

Specimens of an unusual form of *Uncinula spiralis* B. & C., a grape-leaf fungus, from D. A. A. Nichols, Dunkirk, N. Y.

Specimens of ten species of Characeæ, four of them new to the State, from T. F. Allen, M. D., New York, N. Y.

Specimens of monstrous development of two species of fungi from abandoned coal mines, from Prof. L. Lesquereux, Columbus, Ohio.

Specimens of four species of fungi, from Hon. G. W. Clinton, Albany, N. Y.

Specimens of eighteen species of fungi, from F. S. Earle, Cobden, Ill.

Specimens of *Secotium Warnei* Pk., from Aug. F. Foerste, Granville, Ohio.

Specimens of forty-nine species of fungi, from J. B. Ellis, Newfield, N. J.

Specimens of twenty-seven species of California fungi, from H. W. Harkness, M. D., San Francisco, Cal.

By collection of the Botanist, 192 species of plants, 116 of which are new to the herbarium. These are mostly fungi.

II. Zoölogical.

Large red-headed wood-pecker (female), from Andrew Lackey, Johnsbury, Warren county, N. Y.

Boa constrictor, thirteen feet in length. *By purchase.*

Specimens of *Estheria*, from Des Moines, Iowa.

Specimens of *Pyrgula Nevadensis*, Pyramid Lake, Nevada, from R. Ellsworth Call, David City, Nebraska.

List of *Achatinella* presented to the New York State Museum by Dr. W. D. Hartman, February 29, 1884:

A. adusta, Pf., four specimens.

A. affinis, Newc., seven specimens.

A. biplicata, Newc., two specimens.

A. Dunkeri, Cuming, var. *Producta*, Rve., five specimens.

A. elegans, Newc., five specimens.

A. flavescens, Newc., two specimens.

A. formosa, Newc., two specimens.

A. fulgens, Newc., three specimens.

A. Mastersi, Newc., one specimen.

A. pulcherrima, Newc. type, five specimens.

A. splendida, Newc., two specimens.

A. striatula, Gould, ten specimens.

A. textilis, Fer.; *ventulus*, Rve. & Pf.; *microstoma*, Gould, six specimens.

A. turgidula, Pse., two specimens.

A. variabilis, Newc., six specimens.

A. viridans, Mighels, non Pf., five specimens.

III. Geological and Palæontological.

Part of a mastodon tusk from Rochester, N. Y., found in the excavation of the Genesee Valley canal, 1837, from Prof. James Hall.

Plaster casts of the type specimens of *Echinocaris socialis*, *Tropidocaris bicarinata*, *T. interrupta*, *T. alternata* and *Elymocaris siliqua*, from C. E. Beecher.

Favosite from Freehold, Greene county; iron ore from Burden mine, Catskill, and piece of chert resembling a heel-bone, from C. H. Snyder, Freehold, N. Y.

Iron pyrites and iron ore from W. S. Snyder, Hoosick, N. Y.

Six specimens of *Dictyophyton tuberosum*, one specimen of *Dictyophyton patulum* from the Chemung group, Steuben county, N. Y. *By purchase* from Ward and Howell.

Plaster casts of *Stylonurus excelsior*, Catskill group, N. Y.

Plaster casts of *Cleodictya gloriosa*, lower Carboniferous, Indiana.

Plaster casts of *Dictyophyton cinctum*, Chemung group, Pennsylvania.
 Plaster casts of *Dictyophyton parallelum*, Chemung group, New York.
 Plaster casts of *Dictyophyton filitextile*, Chemung group, New York.
 Plaster casts of *Equisetites* (?) *Wrightiana*, (a Crustacean) Chemung group, New York.

Five boxes of fossils of the Chemung and Waverly groups of Warren county, Pennsylvania. *By collection.*

One box of fossils from the dolomitic limestone breccia of Troy, N. Y. *By collection.*

Two large slabs of Potsdam sandstone. *By donation.*

One slab of Utica slate. *By purchase.*

Two blocks of Hudson river bluestone. *By collection.*

Two boxes of Oneida conglomerate, Clinton iron ore and gray sandstone of the Clinton group. *By collection.*

One block of Niagara limestone.

Two blocks of water limestone.

Six blocks of Tentaculite limestone. *By collection.*

Seven blocks of Coralline limestone. *By collection.*

Two boxes of corals from the Coralline limestone, Schoharie, N. Y. *By collection.*

Four blocks of Oriskany sandstone with fossils, Schoharie, N. Y. *By collection.*

One block of Goniatite limestone, Schoharie, N. Y. *By purchase.*

One block of Chemung sandstone, Ithaca, N. Y. *By purchase.*

One box of fossils from the Chemung group at Cortland, N. Y. *By collection.*

IV. *Additions to the Library of the State Museum during the year 1884.—Donations and exchanges.*

Additions to the library of the State Museum during the year 1884.
 Donations and exchanges :

Official Gazette U. S. Patent Office, vol. 25, Nos. 12, 13 ; vol. 26, Nos. 1 to 13, incl. ; vol. 27, Nos. 1-13, incl. ; vol. 28, Nos. 1-14, incl. ; vol. 29, Nos. 1 to 10 (Nos. 4 and 5 missing).

Alphabetical Lists of Patentees and Inventions for the half year, January to June, inclusive, 1883.

Alphabetical Lists of Patentees and Inventions for the quarter ending September 30, 1883.

Index of Decisions of the Commissioners of Patents, July-September, 1883.

Alphabetical Lists of Patentees and Inventions for the quarter ending December 31, 1883.

Alphabetical Lists of Patentees and Inventions for the quarter ending March 31, 1884.

Official Gazette U. S. Patent Office, index to vol. 28, April 1 to June 24, 1884.

Alphabetical Lists of Patentees and Inventions for the quarter ending June 30, 1884.

Annual Report of Commissioner of Patents, 1883.

Journal of the Cincinnati Society of Natural History, vol. VI, No. 4, December, 1883, and vol. VII, No. 1, April, 1884, vol. III, No. 2.

- Department of Agriculture, Chemical Division, Bulletin No. 1.
 Department of Agriculture, Special Report, No. 5.
 Department of Agriculture, Division of Statistics, Report No. 2.
 Department of Agriculture, Division of Statistics, new series, Report No. 5 ; new series, Report No. 6, April, 1884 ; new series, Report No. 7.
 Bulletin American Geographical Society, Nos. 3 and 4, 5 and 6, 1883.
 Bulletin American Geographical Society, Nos. 1, 2, 1884.
 Bureau of Education, Circulars of Information, No. 4, 1883 ; also "The Bufalini Prize," and "Education in Italy and Greece" (three pamphlets) ; Report of the Director of American School of Classical Studies at Athens, for the years 1882 and 1883.
 Circulars of Information No. 5, 1883, and No. 1, 1884, Nos. 2 and 3, 1884, Nos. 4 and 5, 1884.
 Cornell University Register, 1883, 1884.
 Geological Map, Dr. F. V. Hayden, 1869-1880.
 Canadian Record of Natural History and Geology ; Montreal, 1884.
 Bulletin U. S. Fish Commission, vol. III, 1883 ; vol. II, 1882.
 U. S. Commission of Fish and Fisheries, Commissioners' Reports, 1881, 1882.
 Bulletin of the California Academy of Sciences, No. 1, February, 1884.
 Proceedings of the Canadian Institute. Toronto, vol. II. Fasciculus, No. 1, March, 1884, and July, 1884, vol. II ; Fasciculus, 3, 1884.
 Memoirs of the Boston Society of Natural History, vol. III, No. IX.
 American Museum of Natural History, Bulletin, vol. I, No. V, February 13, 1884.
 American Museum of Natural History, Annual Report, March, 1884.
 Bulletin de la Societe Imperiale de Moscow, Nos. 3 and 4, 1882, and Nos. 1 and 2, 1883.
 Johns-Hopkins University, Studies from the Biological Laboratory, vol. III, No. 1, March, 1884.
 Isis in Dresden, Juli bis December, 1883.
 Accessions to Indian Museum, Appendix A, quarter ending 30th September, 1883 ; quarter ending December 31, 1883 ; quarter ending 31st March, 1884 ; Appendices B, C and D.
 Die Fortschritte Der Geologie, etc., C. F. Zincken, Leipzig, 1878.
 Anales del Museo Nacional de Mexico, Tomo III, Eutrayo, 5^a.
 Beiträge zur Palæontologie von Oesterreich-Ungarn und den Angrenzenden Gebieten, E. v. Mojsisovics und M. Neumayr, Band I, Heft. 1, 2, 3, 4 ; Band II ; Band III, Heft. 1, 2, 3, 4 ; Band IV, Heft. 1 and 11, Juli, 1884.
 Coins of Japan, by William Bramsen.
 Japanese Chronological Tables, by William Bramsen.
 Tables of Japanese Weights, by William Bramsen.
 Tables of Japanese Lineal Measures, by William Bramsen.
 Milwaukie under the Charter, vol. 3, J. S. Buck.
 University of Nebraska, Catalogue, 1883, 1884.
 A Contribution of our Knowledge of Palæozoic Arachnida, by S. H. Scudder, June 11, 1884.
 Bulletins of Massachusetts Natural History, June, July, 1884.
 Zur Geschichte der Ueberreste von *Alca impennis*, Linn. von Prof.

Dr. Wilh. Blasius, Naumburg, 1884; also two pamphlets: "*Spermophilus rufescens*" and "*Alca impennis*."

Annual Report City Auditor, Boston, 1883 and 1884.

The Canadian Record of Science, Vol. 1, No. 1, Montreal, 1884.

Scientific Proceedings of the Ohio Mechanics' Institute, vol. II, No. 3, September, 1883.

Smithsonian (Regents) Report for 1881.

Report of Commissioner of Education, 1882 and 1883.

Contributions to the Geological History of the American Continent; the address of the retiring President, delivered before the first Montreal meeting of the American Association for the Advancement of Science, August, 1857, by James Hall. Salem, 1882, 8°, 42 pp., from the author.

Eurypteridæ from the Devonian and Carboniferous Formations of Pennsylvania, by James Hall. Harrisburg, 1884, 8°, 18 pp. and 6 plates, from the author.

Ceratiocaridæ from the Chemung and Waverly groups of Pennsylvania, by C. E. Beecher. Harrisburg, 1884, 8°, 22 pp. and 2 plates, from the author.

Notes on a Nevada Shell (*Pyrgula Nevadensis*), by R. E. Call and C. E. Beecher. Philadelphia, 1884, 8°, 5 pp., 1 plate, from the authors.

By purchase :

Photo-micrographs and how to make them, by George M. Sternberg. Boston, 1884, 8°, 204 pp., 19 plates.

Das Gebiss der Schnecken zur Begründung einer natürlichen Classification, untersucht von Dr. F. H. Troschel. Erster Band, Berlin, 1856-1863, 4to, 252 pp., 20 plates.

Zweiter Band, Berlin, 1866-1879, 4°, 246 pp., 24 plates.

Desmids of the United States and list of American Pediastrums, by the Rev. Francis Wolle. Bethlehem, Pa., 8°, 168 pp., 53 colored plates.

Science, vol. 2, Nos. 46 and 47; vol. 3, Nos. 48 and 49, 51 and 52 to 57, inclusive, Nos. 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73; vol. 4, Nos. 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97.

American Naturalist, January, vol. XVIII, No. 1; February, No. 2; March, No. 3; April, No. 4, May, No. 5; June, No. 6; July, No. 7; August, No. 8; September, No. 9; October, No. 10; November, No. 11; December, No. 12.

American Journal of Science, No. 157, vol. 27, January; No. 158, vol. 27, February; No. 159, March; No. 160, April; No. 161, May; No. 162, June; No. 163, July; No. 164, August; No. 165, September; No. 166, October; No. 168, December.

Nature, vol. 30, Nos. 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 24, 25, 27; vol. 31, Nos. 1, 2, 3.

Encyclopædia Britannica, vol. 17.

Les Champignons de France, par G. C. Gillet, Texte, 1 col.; Atlas, 1 vol. Tableaux Analytiques des Hymenomycètes, par G. C. Gillet, 1 vol. Les Hymenomycètes, par G. C. Gillet Planches supplementaries 1-9 series.

LIST OF MINERALS IN THE GENERAL COLLECTION OF THE MUSEUM.

APPENDIX B.

MINERALS.

This list is here presented not as a catalogue, but rather as a guide to the collection. It is a transcript of the labels upon the specimens, with some additions of mineralogical terms necessary to proper explanation, and the insertion of specific names in some cases, to make the arrangement conformable to the newer systems of classification. Wherever the localities could be recognized with certainty from the characters and known occurrence, they have been added. Doubts as to species and localities are indicated by the mark of interrogation. A few exceptions in the order of arrangement are due to a difference in the determination of the species, otherwise the arrangement in the cases and the order of numbering conform to the mineralogical system. The order of the list and of the collection in the cases agree; beginning at the west of the stairway in the case against the south wall in the third story, it continues to the corner and thence along the west wall to the front or street wall of the building. The reading is from left to right and from top downward in the several sections of the cases.

The sources of this general collection are in part here stated. All the specimens coming from the Van Rensselaer, Simms and Gebhard collections are thus credited. A few other donors are mentioned under their respective gifts.

The Brazilian collection was a donation from the National Museum of Rio de Janeiro. The list of minerals and ores in it was printed in the nineteenth annual report of the Regents on the State Cabinet, 1866.

The Pickett collection, principally one of fossils, was purchased for the Museum in 1867.* The minerals in it are mostly from Lockport, N. Y., and from New England.

The Simms collection, consisting of minerals, fossils and ethnological implements, with some historical relics, was added, by purchase in 1870.†

The minerals of the Gebhard collection were received in 1872.‡ This collection was purchased for its fossils, and the minerals were incidental to it. The localities are omitted on many of the original labels.

The minerals of the Van Rensselaer collection were added in 1872.§ They were collected mainly in New England by the late Dr. Jeremiah Van Rensselaer, and the collection was the gift of Mrs. Van Rensselaer through T. L. Harison, Secretary of the New York State Agricultural Society. Owing to the bad condition of the wrappings and labels through exposure in a damp storage place previous to their reception, the localities were not identified.

* Twenty-first Annual Report on Museum, pp. 20-21.

† Twenty-fourth Annual Report on State Museum, pp. 6, 7 and 27-28.

‡ Twenty-sixth Annual Report on State Museum, p. 7.

§ Twenty-sixth Annual Report on State Museum, pp. 7, 8 and 19.

The collection of zeolites and other minerals given to the Museum by Prof. A. R. Leeds, of Stevens' Institute, Hoboken, N. J., also deserves mention here. It came in 1877.*

The specimens other than in collections above mentioned are, in part, the donations of many individuals, who have thus favored the Museum. They are referred to in the annual reports of the Regents on the State Cabinet and the State Museum.† A large part of this general collection has been gathered incidentally through the efforts of the Director and the numbers thus obtained cannot now be indicated.

The list contains 1,342 numbers, tallying with the number of specimens in the collection.

General Collection.

Number.

- 1 Gold in quartzChapel Hill, N. C.
Presented by Dr. Crump.
- 2 Gold in quartzCalifornia.
Presented by — Rothout.
- 3 Gold in quartzGrass Valley, Cal.
Presented by George Pine.
- 4 Gold in quartz.....Pine Tree Vein, Mariposa, Cal.
- 5 Gold in quartz Honduras, C. A.
Pickett Collection.
- 6 Gold in quartzCalifornia. 132
Simms Collection.
- 7 Gold in quartzCalifornia.
Presented by Joseph Bigsby.
- 8 Gold in quartz, pyrite and silver blende,
Mariposa, Pine Tree vein, Cal.
- 9 Gold with chalcopryrite.....Diamond Spring mine, Cal.
- 10 Gold with chalcopryrite.....Charlotte, N. C.
- 11 Gold in quartzNevada.
Pickett Collection.
- 12 Gold in trachyte.....
- 12a Silver amalgam.....California.
- 13 Copper with calcite..... Lake Superior.
- 14 Copper.....Lake Superior.
- 15 Copper.....Lake Superior.
- 16 Copper.....Lake Superior.
- 17 Copper.....Lake Superior.
- 18 Copper.....Lake Superior.
- 19 Copper with calcite.....Lake Superior.
- 20 Copper.....Lake Superior.
- 21 Copper.....Lake Superior.

NOTE.— The Emmons collection of crystallized minerals, purchased for the Museum in 1877, is not included in this list, as it is placed in cases in the State Hall.

* Thirty-first Annual Reports on State Museum, p. 13.

† Annual Reports on State Cabinet and on State Museum I, pp. 6 and 21-33; II, p. 67; III, pp. 29-37; IV, pp. 73-79 and 82-90; V, pp. 35-43; VI, pp. 27-28; VII, pp. 51-57; VIII, pp. 25-26; IX, pp. 41-44; X, pp. 187-8; XI, p. 44; XII, pp. 108-9; XIII, pp. 17-19; XIV, pp. 13-14; XVI, p. 15; XVII, pp. 20-21; XVIII, pp. 11-12; XIX, pp. 39-41; XX, pp. 15-18; XXI, pp. 15-19; XXII, pp. 10-12; XXIII, pp. 17-19; XXIV, pp. 21-24; XXV, pp. 19-22; XXVI, pp. 19-20; XXVII, pp. 30-33; XXVIII, 23-25; XXIX, pp. 22-23; XXX, pp. 15-17; XXXI, p. 13; XXXII, p. 12; XXXIII, p. 6; XXXIV, pp. 16-17; XXXV, p. 15; XXXVI, pp. 18-19; XXXVII, p. 28; XXXVIII, p.

Number.

- 22 Copper with calcite.....Lake Superior.
 23 Copper.....Lake Superior.
 24 Copper, calcite and heulanditeLake Superior.
 25 Copper.....Lake Superior.
 26 Copper.....Lake Superior.
 27 Copper with calcite.....Lake Superior.
 28 Copper.....Lake Superior.
 29 Copper.....Lake Superior.
 30 Copper.....Lake Superior.
 31 Copper with calcite.....Lake Superior.
 32 Copper.....Lake Superior.
 33 Copper in trap.....Lake Superior.
 34 Copper in trap.....Scovill Point, R. I.
 35 Copper.....Lake Superior.
 36 Copper.....Lake Superior.
 37 Copper with prehnite.....Lake Superior.
 38 Meteoric iron.....South Africa.
 Presented by Professor Shepard.
 39 Meteoric stone, fell in Bethlehem, Albany Co., August 11, 1859.
 40
 41 Arsenic (crude).....
 Presented by Peter Colburn, Esq.
 42 Arsenic.....Ouro Preto, P. de Minas.
 Brazilian Collection.
 43 ArsenicFreiberg ? Saxony.
 44 Arsenic.....Freiberg ? Saxony.
 45 Bismuth in quartz.....Monroe, Conn. 135
 Gebhard Collection.
 46 Bismuth in quartzMonroe, Conn.
 Gebhard Collection.
 47 TelluriumMelonch mine, Amador Co., Cal. 219
 48 Native sulphur.....New Grenada, S. A.
 49 Native sulphur and celestite.....Sicily ? Italy.
 50 Native sulphur and gypsum.....Auburn, N. Y.
 Presented by F. Starr.
 51 Native sulphur and celestiteSicily ? Italy.
 52 Native sulphurNew Grenada, S. A.
 53 Native sulphur and celestite.....Sicily, Italy.
 54 Native sulphur.....Mexico.
 55
 56 Graphite.....Ticonderoga, Essex Co.
 Presented by Hon. Robert Hale, June, 1874.
 57 GraphiteBarreiras, P. de Minas, Brazil. 10
 58 Graphite with calciteTiconderoga, Essex Co.
 Presented by Hon. Robert Hale, June, 1874.
 59 Graphite.....Ticonderoga, Essex Co.
 Presented by Hon. Robert Hale, June, 1875.
 60 Graphite with calcite.....Port Henry, Essex Co., N. Y.
 61 Graphite.....Johnstown, N. Y.
 62 Graphite with calcite.....Port Henry, Essex Co.
 63 Molybdenite in quartz
 Van Rensselaer Collection.

Number.

64	Molybdenite.....	
	Gebhard Collection.	
65	Orpiment.....	Germany. 158
66	Stibnite.....	
	Gebhard Collection.	
67	Stibnite.....	
68	Stibnite	
69	Stibnite	
70	Stibnite	
71	Stibnite	
	Gebhard Collection.	
72	Galenite	Martinsburgh, Lewis Co., N. Y. 175
	Beck Collection.	
73	Galenite with quartz.....	Taubaté P. de S. Paulo.
	Brazilian Collection.	
74	Galenite with pyrite, containing trace of gold,	
	Amazon lode, Gilpin Co., Col.	
75	Galenite (argentiferous)	Iporanga, P. de Parana. 85
	Brazilian Collection.	
76	Galenite	Alaethé, P. de Minas. 88
	Brazilian Collection.	
77	Galenite with calcite	
78	Galenite (argentiferous), \$300 p. ton....	Washington Co., Nev.
79	Galenite and calcite (scalenohedron).....	
	Van Rensselaer Collection.	
80	Galenite	Rossie, St. Lawrence Co.
81	Galenite	Rossie, St. Lawrence Co.
82	Galenite and calcite	
	Van Rensselaer Collection.	
83	Galenite and calcite.....	
	Van Rensselaer Collection.	
84	Galenite and iron pyrites.....	
	Van Rensselaer Collection.	
85	Galenite and calcite.....	
	Van Rensselaer Collection.	
86	Galenite.....	La Motte mine, Mo.
	From J. S. Schoonmaker.	
87	Galenite.....	Santa Fé, New Mexico.
	From G. W. Pine.	
88	Galenite with sphalerite.....	Flat Creek, Montgomery Co.
89	Galenite	
90	Galenite	
91	Galenite	Allegrete, P. de S. Pedro de Sul. 86
	Brazilian Collection.	
92	Galenite, iron pyrites, etc.....	90
	Brazilian Collection.	
93	Galenite.....	Galena, Ill.
	From Duncan Campbell.	
94	Galenite.....	Galena, Ill.
	From Duncan Campbell.	
95	Bornite	Buena Esperanza.

Number.

- 96 Bornite Bristol, Conn.
 97 Bornite Minas de Hegura Coquimbo, Chili.
 98 Bornite
 99 Alabandite
 Van Rensselaer Collection.
 100 Alabandite
 101 Sphalerite in quartz Alaethe, P. de Minas.
 Brazilian Collection.
 102 Sphalerite in quartz
 Van Rensselaer Collection.
 103 Sphalerite
 Van Rensselaer Collection and pyrite.
 104 Sphalerite in Trenton slate
 105 Sphalerite Jasper Co., Ark.
 106 Sphalerite Derbyshire, Eng.
 107 Sphalerite in dolomite, Niagara group, Rochester, Monroe Co.
 108 Sphalerite in dolomite, Niagara group, Rochester, Monroe Co.
 109 Sphalerite, Galenite and Calcite Jasper Co., Ark.
 110 Sphalerite
 Van Rensselaer Collection.
 111 Sphalerite
 Van Rensselaer Collection.
 112 Sphalerite 85
 Brazilian Collection.
 113 Chalcocite and quartz
 Van Rensselaer Collection.
 114 Chalcocite Bristol, Conn.
 Pickett Collection.
 115 Chalcocite
 Van Rensselaer Collection.
 116 Chalcocite, Serpentine and Calcite Keweenaw Pt., L. S.
 117 Cinnabar
 Church Collection.
 118 Cinnabar
 Church Collection.
 119 Cinnabar
 Church Collection.
 120 Cinnabar
 Church Collection.
 121 Cinnabar
 Church Collection.
 122 Cinnabar 70
 Brazilian Collection.
 123 Cinnabar in schist Villarica, P. de Minas.
 Brazilian Collection.
 124 Pyrrhotite Bodenmais, Ger.
 Van Rensselaer Collection.
 125 Pyrrhotite Bodenmais, Ger.
 Van Rensselaer Collection.
 126 Pyrrhotite nickeliferous Jay, Essex Co.
 127 Niccolite

Number.

- 128 Skutterudite.....
- 129 Erythrite (Cobalt bloom)
- 130 Erythrite (Cobalt bloom and Cobaltite?).....
- 131 Pyrite
- Van Rensselaer Collection.
- 132 Pyrite
- Schoharie, Schoharie Co., N. Y.
Beck Collection.
- 133 Pyrite
- Watervliet, Albany Co., N. Y.
J. D. Darling.
- 134 Pyrite auriferous in quartz.....
- Torquairn, P. de Minas.
Brazilian Collection.
- 135 Pyrite
- Schoharie, N. Y.
- 136 Pyrite
- Pickett Collection.
- 137 Pyrite
- Schoharie, N. Y.
- 138 Pyrite and Galena
- Van Rensselaer Collection.
- 139 Pyrite
- Schoharie, N. Y.
- 140 Pyrite
- Gouverneur, N. Y.
Pickett Collection.
- 141 Pyrite
- Schoharie, N. Y.
- 142 Pyrite
- Schoharie, N. Y.
- 143 Pyrite
- Schoharie, N. Y.
- 144 Pyrite
- Schoharie, N. Y.
- 145 Pyrite
- Schoharie, N. Y.
- 146 Chalcopyrite and quartz
- Sheffield, Mass.
From N. T. Brownell.
- 147 Chalcopyrite
- Honduras.
Pickett Collection.
- 148 Chalcopyrite
- Lake Superior.
From B. Known, Syracuse.
- 149 Chalcopyrite.....
- 150 Chalcopyrite
- California.
Pickett Collection, Canton, St. Lawrence Co.
- 151 Chalcopyrite
- 152 Chalcopyrite with quartz
- San Juan, Mexico.
- 153 Chalcopyrite and pyrite.....
- Central City, Col.
Containing gold, silver and nickel.
- 154 Chalcopyrite in quartz and feldspar.....
- Bristol, Conn.
- 155 Chalcopyrite with Calcite.....
- 156 Chalcopyrite
- Van Rensselaer Collection.
- 157 Chalcopyrite with pyrite.....
- 158 Chalcopyrite.....
- Wurtsborough, Sullivan Co., N. Y.
- 159 Chalcopyrite.....
- Pickett Collection.
- 160 Arsenical pyrites.....
- Edenville, Orange Co.
Beck Collection.
- 161 Arsenical pyrites.....
- Brazilian Collection.
- 162 Arsenopyrite.....
- Edenville, Orange Co.

Number.

- 163 Arsenical pyrites Caldbeck Fells, Cumberland, Eng.
 164 Arsenopyrite.....Edenville, Orange Co., N. Y.
 Gebhard Collection.
 165 Arsenopyrite and quartz.....California.
 166 Scorodite
 Brazilian Collection.
 167 Aikinite
 Van Rensselaer Collection.
 168 TetrahedriteSouth America.
 Presented by Señor Asta.
 169 Tetrahedrite, Galenite and Chalcopyrite
 170 Pyrargyrite.....Freiberg, Saxony.
 172 Halite, rock salt.....Cheshire, Eng.
 173 Halite, rock saltCheshire, Eng.
 174 Halite, rock saltCheshire, Eng.
 175 Halite, rock saltCheshire, Eng.
 176 Halite, rock saltCheshire, Eng.
 177 Silver oreSiberia.
 178 Silver oreBlue Ophir Ledge, Cal.
 Simms Collection.
 179 Silver ore.....California.
 180 Fluorite.....
 Gebhard Collection.
 181 Fluorite and Galena.....
 Brazilian Collection.
 182 Fluorite
 183 Fluorite (green)Cumberland, Eng.
 184 FluoriteDerbyshire, Eng.
 185 Fluorite and Barite.....
 Van Rensselaer Collection.
 186 Fluorite
 187 Fluorite.....
 Gebhard Collection.
 188 Fluorite.....
 Gebhard Collection.
 189 Fluorite.....
 Gebhard Collection.
 190 Fluorite (polished).....Matlock, Eng.
 191 Fluorite.....
 192 Fluorite.....
 Gebhard Collection.
 193 Fluorite.....Muskelonge lake, Jefferson Co., N. Y.
 Pickett Collection.
 194 Fluorite and pearl spar.....Rochester, N. Y.
 195 Fluorite (purple).....
 Van Rensselaer Collection.
 196 Fluorite on Blende.....Matlock, Eng.
 197 Fluorite (octahedral).....
 Van Rensselaer Collection.
 198 Fluorite (veined).....Derbyshire, Eng.
 199 Yttrocerite in CalciteAmity, Orange Co.

Number.

- 200 Cryolite.....Greenland.
From R. C. Ross.
- 201 Fluorite.....
Van Rensselaer Collection.
- 202 Fluorite.....
Van Rensselaer Collection.
- 203 Fluorite.....
Gebhard Collection.
- 204 Cuprite.....Honduras.
- 205 Cuprite.....
Gebhard Collection.
- 206 Cuprite and Malachite.....Chili, S. A.
Pickett Collection.
- 207 Cuprite.....Bound Brook, N. J.
- 208 Cuprite.....
Van Rensselaer Collection.
- 209 Cuprite and Malachite.....
Van Rensselaer Collection.
- 210 Massicot (Oxide of lead).....Galena, Ill.
Pickett Collection.
- 211 Zincite and Franklinite.....Franklin, N. J.
Van Rensselaer Collection.
- 212 Zincite and Franklinite.....Franklin, N. J.
Simms Collection.
- 213 Zincite and Franklinite.....Franklin, N. J.
Van Rensselaer Collection.
- 214 Zincite and Franklinite.....Franklin, N. J.
Van Rensselaer Collection.
- 215 Zincite and Franklinite.....Franklin, N. J.
Van Rensselaer Collection.
- 216 Zincite and Franklinite.....Franklin, N. J.
- 217 Melaconite.....
Van Rensselaer Collection.
- 218 Melaconite.....Minas de Andacollo.
- 219 Melaconite.....Honduras.
Pickett Collection.
- 220 Melaconite and copper.....
Gebhard Collection.
- 221 Melaconite.....Flemington, N. J.
- 222 Melaconite.....Lake Superior.
- 223 Corundum (Sapphire, blue).....New Jersey. 38
- 224 Corundum (Sapphire, blue).....New Jersey.
- 225 Corundum (Sapphire, blue).....Newton, Sussex Co., N. J.
- 226 Corundum (Sapphire, blue).....Newton, Sussex Co., N. J.
- 227 Hematite (Specular iron ore).....
Van Rensselaer Collection.
- 228 Hematite (Specular iron ore).....
Van Rensselaer Collection.
- 229 Hematite (Specular iron ore).....Gouverneur, N. Y.
- 230 Jasper on hematite.....
Van Rensselaer Collection.

Number.

231	Hematite (Specular iron ore)	
	Van Rensselaer Collection.	
232	Hematite (Specular hematite)	Lake Superior.
233	Hematite (Micaceous oligiste)	Itabira, P. de Minas. 53
	Brazilian Collection.	
234	Hematite (Lamellar oligiste) in quartz,	
	Serra da Gameleira, Bahia	44
235	Hematite	61
	Brazilian Collection.	
236	Hematite (Micaceous oligiste).....	Itabira, P. de Minas. 57
	Brazilian Collection.	
237	Hematite (Oligiste).....	Cabaceiro, Rio Grande de Norte. 51
	Brazilian Collection.	
238	Hematite (Lamellose oligiste)	
	Mine of Tente Casimero, P. de Minas.	54
	Brazilian Collection.	
239	Hematite (Oligiste ochreous)	Santaram, P. de Pará. 55
	Brazilian Collection.	
240	Hematite (Specular iron)	68
	Brazilian Collection.	
241	Chromite	
	Van Rensselaer Collection.	
242	Hematite (Oligiste)	Serra d'Araripe, P. de Ceará. 45
	Brazilian Collection.	
243	Hematite.....	Bagé, Rio Grande de S. Pedro do Sul. 46
	Brazilian Collection.	
244	Hematite (Itabyrite and Amphibolite)	
	Itabirado Campo, P. de Minas.	52
	Brazilian Collection.	
245	Hematite	
	Brazilian Collection.	
246	Hematite	
247	Hematite.....	
248	Hematite (Oligiste), in part hydrated..	Caxias, P. de Maranhao. 56
	Brazilian Collection.	
249	Hematite.....	Iron mountain, Mo.
250	Hematite (Specular iron)	
	Van Rensselaer Collection.	
251	Hematite with quartz.....	Potsdam, St. Lawrence Co., N. Y.
252	Martite.....	Arnold bed, Clinton Co., N. Y.
253	Martite.....	Loudonville, Albany Co., N. Y.
253a	Martite	
	From J. F. Flannery.	
254	Hematite (Lenticular iron ore)	Pennsylvania. 56
255	Hematite.....	Pennsylvania.
256	Hematite (Lenticular iron ore)....	Clinton, Oneida Co., N. Y.
257	Menaccanite (crichtonite)...Serra de Nassouras	P. de Minas. 67
	Brazilian Collection.	
258	Menaccanite, replacing mica in granite,	
	Potsdam Junction, St. Lawrence Co., N. Y.	
259	Magnetite	Essex Co., N. Y.

Number.

260	Spinel.....	Van Rensselaer Collection.	
261	Spinel.....	Van Rensselaer Collection.	
262	Spinel.....	Van Rensselaer Collection.	
263	Spinel.....	Edenville, Orange county.	
264	Spinel (red)	Vernon, N. J.	
265	Spinel, in Trachyte	Germany.	
266	Spinel		
267	Spinel.. ..	Van Rensselaer Collection.	
268	Spinel.....	Amity, Orange Co., N. Y. Beck Collection.	
269	Spinel.....	Amity, Orange Co., N. Y.	
270	Spinel.....	Amity, Orange Co., N. Y.	
271	Spinel.....	Amity, Orange Co., N. Y.	
272	Spinel.....	Amity, Orange Co., N. Y.	
273	Spinel.. ..	Amity, Orange Co., N. Y.	
274	Spinel (ruby)	Amity, Orange Co., N. Y.	
275	Spinel.....	Warwick, Orange Co., N. Y. Beck Collection.	
276	Cassiterite	Cornwall, Eng.	
277	Cassiterite, in granite	Rio Paranepeba, P. de Minas. Brazilian Collection.	69
278	Magnetite	Moriah, Essex Co., N. Y.	
279	Magnetite.....	Barton Hill mine, Moriah, Essex Co., N. Y.	
280	Magnetite.....	Palmeriodos Indios, P. de Alageas. Brazilian Collection.	58
281	Magnetite.....	Barton Hill mine, Moriah, Essex Co., N. Y.	
282	Magnetite	Forest of Dean mine, Orange Co., N. Y.	
283	Magnetite.....	Forest of Dean mine, Orange Co., N. Y. From W. C. H. Sherman.	
284	Magnetite.....	Barton Hill mine, Essex Co., N. Y.	
285	Magnetite.....	S. Jo de Ypanema, P. de S. Paulo. Brazilian Collection.	59
286	Crystals of magnetite	Cocoas, P. de Minas. Brazilian Collection.	60
287	Magnetite (iron sand)	Lake Champlain, N. Y.	
288	Franklinite and zincite.....	Franklin, N. J. From Prof. James Hall.	
289	Franklinite and zincite	Franklin, N. J.	
290	Franklinite and zincite	Franklin, N. J.	
291	Franklinite and zincite	Franklin, N. J.	
292	Magnetite.....		
293	Franklinite iron.....	Sussex Co., N. J. From Geo. R. Howell.	
294	Magnetite.....	Van Rensselaer Collection.	
295	Siderite (and Uraninite ?)	Cornwall, Eng.	
296	Uraninite.....		

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297	Chrysoberyl.	Haddam, Conn.	
298	Chrysoberyl.....		
299	Chrysoberyl.....	Greenfield, Saratoga Co., N. Y.	
300	Chrysoberyl		
301	Chrysoberyl.....	Haddam, Conn.	
302	Rutile.....		
303	Manganite.....	Nazareth, P. de Bahia.	81
	Brazilian Collection.		
304	Manganite	Antonio Pereira, P. de Minas.	65
	Brazilian Collection.		
305	Manganite	Antonio Pereira, P. de Minas.	66
	Brazilian Collection.		
306	Manganite.....	S. Jeronymo, P. de S. Pedro, de Sul.	82
	Brazilian Collection.		
307	Proylusite		
	Van Rensselaer Collection.		
308	Pyrolusite.....		
	Van Rensselaer Collection.		
309	Pyrolusite.....		
	Van Rensselaer Collection.		
310	Pyrolusite.....		85
311	Pyrolusite on Limonite.....	Salisbury, Conn.	
312	Pyrolusite.....	Germany.	
	Van Rensselaer Collection.		
313	Pyrolusite.....	Germany.	
314	Brucite.....	Woods' mine, Lancaster Co., Pa.	
	Pickett Collection.		
315	Turgite on Limonite.....	Fort Ann, Washington Co., N. Y.	
316	Limonite.....	Obidos, Para.	48
	Brazilian Collection.		
317	Limonite (Brown hematite, Stalactitic)..	Itabira, P. de Minas.	50
	Brazilian Collection.		
318	Limonite (mammillary)		
319	Limonite (botryoidal).....	Salisbury, Conn.	
320	Limonite.....	Salisbury, Conn.	
	From H. Averill.		
321	Limonite.....	Salisbury, Conn.	
322	Limonite.....		
323	Limonite.....		
324	Limonite (fibrous)	Bennington, Vt.	
	Simms Collection.		
325	Limonite.....	Litchfield, Conn.	
	Pickett Collection.		
326	Limonite (fibrous).....		
327	Limonite	Iron Mt., Missouri.	
	Pickett Collection.		
328	Limonite.....	Salisbury, Conn.	
329	Limonite.....	Salisbury, Conn.	
330	Limonite.....	Fort Ann, Washington Co., N. Y.	
331	Limonite (slaty)	Ceritiba, P. de Parana.	
	Brazilian Collection.		

Number.

- 332 Limonite.....Salisbury, Conn.
From B. F. Otterson.
- 333 Limonite.....Fort Ann, Washington Co., N. Y.
- 334 Limonite.....Parana, Brazil.
- 335 Limonite (bog ore)Saratoga Co., N. Y.
Pickett Collection.
- 336 Limonite (bog ore)Glen, Montgomery Co., N. Y.
Simms Collection.
- 337 Hematite P. de Sergippe, Brazil?
- 338 Brucite on serpentine.....Hoboken, N. J.
From Prof. Leeds.
- 339 Brucite with marmolite.....Hoboken, N. J.
- 340 Brucite in serpentineHoboken, N. J.
- 341 BruciteHoboken, N. J.
From Prof. Leeds.
- 342 Gibbsite.....Pa.
Simms Collection.
- 343 Gibbsite.....Pa.
Simms Collection.
- 344 Gibbsite.....Richmond, Mass.
- 345 Gibbsite.....Steamboat, Pa.
Pickett Collection.
- 346 Gibbsite
Gebhard Collection.
- 347 Gibbsite.....Richmond, Mass.
- 348 Bismite.....Clausthal, Bohemia.
- 349 BismiteCatla Branca, P. de Minas.
Brazilian Collection.
- 350 Quartz (crystals)
Van Rensselaer Collection.
- 351 Quartz (Rock crystal)
- 352 Quartz (Rock crystal)
- 353 Quartz (Rock crystal)
- 354 Quartz (Rock crystal)
- 355 Quartz.....Easton, Pa.
Simms Collection.
- 356 Quartz.....
- 357 Quartz.....
- 358 Quartz.....
- 359 Quartz.....
- 360 Quartz (crystals)Middleville, Herkimer Co., N. Y.
Simms Collection.
- 361 Quartz penetrated by stibnite.....
- 362 Quartz.....
- 363 Quartz.....
- 364 Quartz (crystals)
- 365 Quartz.....Craigville, Orange Co.
Beck Collection.
- 366 Quartz.....St. Lawrence Co., N. Y.
- 367 Quartz.....Rossie, St. Lawrence Co., N. Y.
- 368 Quartz.....
Van Rensselaer Collection.

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- 369 Quartz.....Dauphiny, France.
Pickett Collection.
- 370 Quartz.....
Pickett Collection.
- 371 Quartz.....Ellenville, Ulster Co.
- 372 Quartz, calcite and galenite.....
Van Rensselaer Collection.
- 373 Quartz.....
- 374 Quartz.....
Van Rensselaer Collection.
- 375 Quartz (Hyaline).....Brumado, P. de Minas. 28
Brazilian Collection.
- 376 Quartz (Drusy) barite and malachite,
Catskill, Greene Co., N. Y.
- 377 Quartz (Hyaline).....Itambe P. de Minas. 29
Brazilian Collection.
- 378 Quartz coated with chlorite.....
Van Rensselaer Collection.
- 379 Quartz.....Fowler, St. Lawrence Co., N. Y.
- 380 Quartz.....
Van Rensselaer Collection.
- 381 Quartz.....
Van Rensselaer Collection.
- 382 Quartz (yellow)Rossie, St. Lawrence Co., N. Y.
- 383 Quartz.....
- 384 Quartz.....Northern N. Y.
Pickett Collection.
- 385 Quartz.....
Van Rensselaer Collection.
- 386 Quartz (crystals)Trout lake.
- 387 Quartz.....Jefferson Co., N. Y.
Pickett Collection.
- 388 Quartz.....
- 389 Quartz.....Rossie, St. Lawrence Co., N. Y.
- 390 Quartz.....Dotterval, P. de S. Pedro.
Brazilian Collection.
- 391 Quartz (Rock crystal) with calcite..Moriah, Essex Co., N. Y.
- 392 ?.....
- 393 Quartz (Rock crystal).....Spraker's Basin, Montgomery Co.
- 394 Quartz crystals in limestone. W. Canada creek, Newport, N. Y.
- 395 Quartz.....Fowler, St. Lawrence Co., N. Y.
- 396 Quartz.....
Van Rensselaer Collection.
- 397 Quartz.....
Pickett Collection.
- 398 Quartz.....Bear Valley, Mariposa Co., Cal.
Near Col. Fremont's residence.
- 399 Quartz.....Wurtsboro mine, Sullivan Co., N. Y.
Beck Collection.
- 400 Quartz.....Iserlohn, Germany.
- 401 Quartz (milky)

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402	Quartz on ferruginous sandstone.....	
	Van Rensselaer Collection.	
403	Quartz.....	
404	Amethyst.....	
	Van Rensselaer Collection.	
405	Amethyst.....	
	Van Rensselaer Collection.	
406	Quartz (geode) amethyst.....	
	Van Rensselaer Collection.	
407	Amethyst.....	
	From Dr. Chas. Martin.	
408	Amethyst (geode).....	
	Simms Collection.	
409	Amethyst.....	
410	Amethyst.....	gold mine, California.
411	Amethyst.....	P. de Minas, various places. 35
	Brazilian Collection.	
412	Rose quartz	Pedro Lavrada, P. de Rio Grande do Norte. 30
	Brazilian Collection.	
413	Rose quartz.....	
414	Rose quartz	Mt. Washington, N. H.
	From J. V. L. Pruyn.	
415	Rose quartz.....	Rubinstein, Bavaria.
416	Smoky quartz.....	
417	Smoky quartz and feldspar.....	
	Van Rensselaer Collection.	
418	Smoky quartz.....	
419	Smoky quartz.....	
420	Smoky quartz ...	Old iron ore bed, Moriah, Essex Co., N. Y.
421	Smoky quartz.....	Essex Co., N. Y.
422	White quartz.....	Bergen, N. J.
	From Prof. Leeds, Hoboken.	
423	Quartz and albite.....	Pennsylvania.
	Simms Collection.	
424	Chalcedony.....	
	Pickett Collection.	
425	Chalcedony.....	Alabama.
426	Quartz (geode).....	
427	Chalcedony.....	Alabama.
428	Chalcedony.....	Alabama.
429	Chalcedony.....	
430	Chalcedony.....	Alabama.
431	Chalcedony.....	Bosphorus, Asia Minor.
432	Chalcedony.....	Massachusetts.
433	Chalcedony with Magnetite.....	
434	Chalcedony and selenite.....	Rochester, N. Y.
	Pickett Collection.	
435	Chalcedony.....	
436	Chalcedony.....	Terro de St. Roque, S. Pedro do Sul. 31
	Brazilian Collection.	
437	Chalcedony.....	

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438	Chalcedony	Mt. Lebanon, Syria.	
439	Chalcedony		
440	Chalcedony		
441	Chalcedony		
442	Chalcedony		
443	Chalcedony		
	Pickett Collection.		
444	Chalcedony		
445	Chalcedony		
446	Chalcedony	North part of Yellowstone park, Montana.	
447	Chrysoprase		
	Gebhard Collection.		
448	Chrysoprase	Mähren, Germany.	
449	Chrysoprase	Bound Brook, N. J.	
450	Chrysoprase	Baumgarten, Germany.	
451	Agate	Ireland,	354
	Simms Collection.		
452	Agate		
453	Agate	Rock of Gibraltar.	
	Simms Collection.		
454	Moss agate		
455	Agate	Rio Jaguarao, Brazil.	
456	Agate		
457	Agate		
458	Agate		
459	Agate		
460	Agate	Rio Jaguarao, S. Pedro do Sul, Brazil.	32
461	Agate	Rio Jaguarao, S. Pedro do Sul.	
	Brazilian Collection.		
462	Agate (Seixas rollados)	Rio de S. Francisco do Norte.	33
	Brazilian Collection.		
463	Jasper	Saugus, Mass.	68
	Simms Collection.		
464	Jasper		
	Simms Collection.		
465	Agate	Rio Jaguarao, P. de S. Pedro do Sul.	34
	Brazilian Collection.		
466	Jasper and specular iron (boulder)	Grand Rapids, Mich.	
	Pickett Collection.		
467	Flint		157
	Gebhard Collection.		
468	Flint in chalk	England.	
	Pickett Collection.		
469	Quartz (Siliceous concretions)		
470	Hornstone		
471	Hornstone		
472	Wood-opal	Alexandria, Va.	
473	Wood-opal	Mt. Diablo, Cal.	
	Simms Collection.		
474	Silicified wood		
	Pickett Collection.		

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- 475 Precious opal.....
Gebhard Collection.
- 476 Common opal.....
- 477 Common opal.....
- 478 Common opal.....
Van Rensselaer Collection.
- 479 Chalcedony.....Keokuk, Iowa. (?)
- 480 Opal.....Gallatin Co., Mont.
- 481 Opal-agate.....
Van Rensselaer Collection.
- 482 Opal-agate.....California.
- 483 Silicified wood.....California.
From Hon. Charles Daly.
- 484 Menilite.....
Van Rensselaer Collection.
- 485 Menilite.....Bohemia.
Gebhard Collection.
- 486 Menilite.....
Van Rensselaer Collection.
- 487 Cacholong in amygdaloid....Partridge island, Nova Scotia.
Pickett Collection.
- 488 Hyalite.....Vesuvius, Italy.
- 489 Silicified wood.....Wyoming territory.
From a log 12 feet long, 10 inches in diameter.
- 490 Enstatite (bronzite) fluorite and serpentine,
Amity, Orange Co., N. Y.
- 491 Enstatite.....Amity, Orange Co., N. Y.
- 492 Hypersthene rock.....
- 493 Wollastonite.....Essex Co., N. Y.
Pickett Collection.
- 494 Wollastonite.....Essex Co., N. Y.
Pickett Collection.
- 495 Wollastonite.....Lewis, Essex Co., N. Y. 1061
Pickett Collection.
- 496 Pyroxene.....
Van Rensselaer Collection.
- 497 Pyroxene, crystals.....
- 498 Pyroxene.....Monroe, Orange Co., N. Y.
- 499 Pyroxene.....Warwick, Orange Co., N. Y.
- 500 Pyroxene (coccolite).....
- 501 (Coccolite) with quartz and magnetite,
Port Henry, Essex Co., N. Y.
- 502 (Coccolite).....Long pond, Essex Co., N. Y.
- 503 Pyroxene...Greenwood furnace, Monroe, Orange Co., N. Y.
- 504 Canaanite (white pyroxene).....Canaan, Conn.
- 505 Jeffersonite (2 specimens).....Franklin, N. J.
- 506 Jeffersonite.....Franklin, N. J.
- 507 Jeffersonite.....Franklin, N. J.
- 508 Acmite.....Norway.
- 509 Rhodonite.....Cummington, Mass.
Pickett Collection.

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- 510 RhodoniteCummington, Mass.
Pickett Collection.
- 511 RhodoniteCummington, Mass.
Pickett Collection.
- 512 SpodumeneSterling, Mass.
- 513 Petalite.....
Pickett Collection.
- 514 PetaliteBolton, Mass.
Gebhard Collection.
- 515 Amphibole (Tremolite)
Van Rensselaer Collection.
- 516 Amphibole (Tremolite).....
- 517 Amphibole (Tremolite).....Canaan, Columbia Co, N. Y.
Gebhard Collection.
- 518 Amphibole (Tremolite).....Dover, Dutchess Co., N. Y. 309
Beck Collection.
- 519 Amphibole (Tremolite), Gouverneur, St. Lawrence Co., N. Y.
- 520 Amphibole (Tremolite)..... Port Henry, Essex Co., N. Y. 1047
Beck Collection.
- 521 Amphibole (Tremolite).....Edenville, Orange Co., N. Y.
- 522 Amphibole (Tremolite), Kane's quarry, Westchester Co., N.Y. 494
Beck Collection.
- 523 Amphibole (Tremolite)
Van Rensselaer Collection.
- 524 Amphibole (Tremolite)Amity, Orange Co., N. Y. 612
Beck Collection.
- 525 Amphibole (Tremolite)..... Patterson, Putnam Co., N. Y. 329
Beck Collection.
- 526 Amphibole (Tremolite).....Edenville, Orange Co., N. Y.
- 527 Amphibole (Tremolite) Sheffield, Mass.
- 528 Amphibole (actinolite)Middlefield, Mass.
- 529 Amphibole (actinolite)..... Middlefield, Mass.
- 530 Amphibole (actinolite).....Middlefield, Mass.
- 531 Hornblende and talc.....
Van Rensselaer Collection.
- 532 Hornblende
- 533 Hornblende
Van Rensselaer Collection.
- 534 HornblendeFitchburg, Mass.
Pickett Collection.
- 535 HornblendeYonkers, Westchester Co., N. Y. 517
Beck Collection.
- 536 Hornblende
Van Rensselaer Collection.
- 537 Sahlite
Gebhard Collection.
- 538 Hornblende.....Edenville, Orange Co., N. Y.
Beck Collection.
- 539 Hornblende
- 540 ?
- 541 Hornblende.....
Van Rensselaer Collection.

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- 542 Hornblende Amity, Orange Co., N. Y.
 543 Hornblende Crag Harbor, Essex Co. 1033
 Beck Collection.
 544 Hornblende New Rochelle, Westchester Co., N. Y. 414
 Beck Collection.
 545 Hornblende, Spruce Swamp mine, Monroe, Orange Co., N. Y.
 Gebhard Collection.
 546 Actinolite
 Van Rensselaer Collection.
 547 Hornblende
 Gebhard Collection.
 548 Hornblende and quartz
 Van Rensselaer Collection.
 549 Hornblende Monroe, Orange Co., N. Y. 354
 Beck Collection.
 550 Hornblende, Cumingtonite
 Gebhard Collection.
 551 Hornblende Rossie, St. Lawrence Co., N. Y. 226
 552 Hornblende Piermont, Rockland Co., N. Y. 1062
 Beck Collection.
 553 Hornblende South East, Putnam Co., N. Y. 81
 Beck Collection.
 554 Hornblende
 Van Rensselaer Collection.
 555 Anthophyllite, Hydrous New York city.
 556 Anthophyllite New York city.
 557 Anthophyllite
 558 Anthophyllite Bucks Co., Pa.
 From Prof. Leeds, Hoboken.
 559 Pargasite Vermont.
 560 Pargasite and chondrodite Vernon, Sussex Co., N. J.
 561 Asbestos Quarantine, Staten Island. 358
 Beck Collection.
 562 Asbestos Staten Island, N. Y.
 From Prof. Leeds, Hoboken.
 563 Asbestos
 564 Asbestos
 565 Asbestos DeKalb, St. Lawrence Co., N. Y.
 566 Amianthus P. de Minas, Brazil. 39
 Brazilian Collection.
 567 Asbestos Massachusetts.
 Pickett Collection.
 568 Asbestos Wilks mine, Orange Co., N. Y.
 Beck Collection.
 569 Beryl Acworth, N. H.
 570 Beryl Acworth, N. H.
 571 Beryl Acworth, N. H.
 Pickett Collection.
 572 Beryl
 Van Rensselaer Collection.
 573 Beryl Monroe, Orange Co., N. Y.

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- 574 Beryl Acworth, N. H.
Pickett Collection.
- 575 Beryl Monroe, Orange Co., N. Y.
- 576 Beryl Monroe, Orange Co., N. Y.
- 577 Beryl
Van Rensselaer Collection.
- 578 Beryl
Van Rensselaer Collection.
- 579 Beryl
Van Rensselaer Collection.
- 580 Beryl Monroe, Orange Co., N. Y.
- 581 Boltonite Bolton, Mass.
Pickett Collection.
- 582 Chrysolite Valvesais, France.
- 583 Chrysolite
- 584 Chrysolite (olivine lava) Vesuvius, Italy.
- 585 Chrysolite Batschwald, Ger.
- 586 Furnace slag Palmer's furnace, Buffalo, N. Y.
Pickett Collection.
- 587 Furnace slag
Pickett Collection.
- 588 Willemite and Franklinite Franklin, N. J.
From Prof. Leeds.
- 589 Willemite, zincite, etc Sterling Hill, N. J.
- 590 Willemite, zincite, etc Franklin, N. J.
- 591
- 592 Garnet Yonkers, Westchester Co., N. Y.
- 593 Garnet
Van Rensselaer Collection.
- 594 Garnet Rogers' Rock, Essex Co., N. Y. 532
Beck Collection.
- 595 Garnet
Van Rensselaer Collection.
- 596 Garnet
Van Rensselaer Collection.
- 597 Garnet
- 598 Garnet
Van Rensselaer Collection.
- 599 Garnet
Van Rensselaer Collection.
- 600 Garnet
Van Rensselaer Collection.
- 601 Garnet Schoharie, N. Y.
- 602 Garnet in gneiss Yonkers, Westchester Co., N. Y.
- 603 Garnet New Hampshire.
- 604 Garnet
Van Rensselaer Collection.
- 605 Garnet in Talcose slate Dover, Dutchess Co., N. Y.
- 606 Garnets in Mica slate
- 607 Garnet in Labradorite Lewis Corners, Essex Co.
- 608 Garnet in Hornblende

Number.

- 609 Garnet (Melanite).....
- 610 Garnet (Melanite).....Franklin, N. J.
- 611 Garnet.....Franklin, N. J.
- 612 Garnet.....Hanover N. H.
- 613 Garnet
- 614 Garnet (Cinnamon stone)Amity, Orange Co., N. Y. 599
Beck Collection.
- 615 Garnet (Colophonite).....Willsborough, Essex Co., N. Y.
- 616 Garnet.....
Van Rensselaer Collection.
- 617 Garnet (Colophonite).....Willsborough, Essex Co., N. Y.
- 618 Garnet (Colophonite).....
Van Rensselaer Collection.
- 619 Garnet (Colophonite).....
Van Rensselaer Collection.
- 620 ZirconCornwall, Orange Co., N. Y.
- 621 Zircon.....
- 622 Zircon in Scapolite.....Edenville, Orange Co., N. Y.
- 623 ?.....
- 624 ZirconWarwick, Orange Co., N. Y.
- 625 Vesuvianite.....Sandford mine, Essex Co., N. Y.
Pickett Collection.
- 626 Vesuvianite.....Vesuvius, Italy.
Gebhard Collection.
- 627 VesuvianiteVesuvius ? Italy.
Gebhard Collection.
- 628 Vesuvianite
- 629 Vesuvianite in lava ?.....Vesuvius ? Italy.
- 630 VesuvianiteVesuvius ? Italy.
- 631 VesuvianiteVesuvius ? Italy.
- 632 VesuvianiteVesuvius ? Italy.
- 633 Vesuvianite (Egeran).....Eger, Bohemia.
- 634 Epidote.....Norway.
- 635 Epidote.....Norway.
Gebhard Collection.
- 636 Epidote.....Warwick, Mass.
Pickett Collection.
- 637 Epidote.....Harlem, N. Y.
Beck Collection.
- 638 Epidote.....
Pickett Collection.
- 639 Epidote.....Chester.
Gebhard Collection.
- 640 Epidote and garnet.....
- 641 ZoisiteNewfane, Vt.
- 642 Zoisite.....
Gebhard Collection.
- 643 Axinite.....Cornwall, Eng.
- 644 Lepidolite.....Paris, Me.
Pickett Collection.
- 645 Lepidolite.....
Van Rensselaer Collection.

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- 646 Margarodite Acworth, N. H.
 647 Margarodite Trumbull, Conn.
 Simms Collection.
 648 Margarodite Acworth, N. H.
 649 Mica Yonkers, Westchester Co., N. Y. 497
 Beck Collection.
 650 Muscovite Moriah, Essex Co., N. Y.
 651 Mica in granite Central Park, N. Y.
 652 Mica (muscovite)
 653 Mica (muscovite)
 654 Mica (phlogopite)
 Pickett Collection.
 655 Phlogopite Perth, Canada.
 656 Phlogopite Perth, Canada.
 657 Phlogopite Edenville, Orange Co., N. Y.
 658 Phlogopite Edenville, Orange Co., N. Y.
 659 Phlogopite Edenville, Orange Co., N. Y.
 660 Phlogopite Monroe, Orange Co., N. Y.
 661 Mica St. Lawrence Co., N. Y.
 662 Mica Rossie, St. Lawrence Co., N. Y.
 663 Mica Antwerp, Jefferson Co., N. Y.
 664 Phlogopite Edwards, St. Lawrence Co., N. Y.
 665 Phlogopite Edwards, St. Lawrence Co., N. Y.
 666 Phlogopite Pope's Mills, St. Lawrence Co., N. Y.
 667 Biotite in quartz,
 Quartz quarry, Crown Point, Essex Co., N. Y.
 668 Mica (Biotite)
 669 Scapolite
 670 Scapolite Cheever mine, Essex Co., N. Y.
 671 Scapolite Amity, Orange Co., N. Y.
 672 Scapolite Edenville, Orange Co., N. Y.
 673 Scapolite
 Van Rensselaer Collection.
 674 Scapolite Lewis, Essex Co., N. Y.
 675 Scapolite Ticonderoga, Essex Co., N. Y.
 Beck Collection.
 676 Scapolite Keene, Essex Co., N. Y.
 Gebhard Collection.
 677 Scapolite
 678 Scapolite St. Lawrence Co., N. Y.
 679 Scapolite
 680 Scapolite Massachusetts.
 Pickett Collection.
 681 Meionite and Natrolite in lava Mt. Somma, Italy.
 682 Hauynite in lava Mt. Vesuvius, Italy.
 683 Hauynite Andernach, Lake Laach, Rhine, Germany.
 684 Hauynite in glassy feldspar,
 Andernach, Lake Laach, Rhine, Germany.
 685 Leucite in lava Vesuvius, Italy.
 686 Leucite Vesuvius, Italy.
 687 Labradorite Essex Co., N. Y.

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688	Labradorite.....	Essex Co., N. Y.	1076
	Beck Collection.		
689	Labradorite.....		
	Gebhard Collection.		
690	Labradorite.....		
691	Labradorite.....	St. Lawrence Co.	
692	Albite and Schörl.....	East Haddam, Conn.	
693	Albite.....		
694	Feldspar.....		
	Van Rensselaer Collection.		
695	Albite and Rubellite.....	Massachusetts.	
696	Albite and Rubellite.....	Massachusetts.	
697	Albite.....	Crown Point, Essex Co.	
698	Albite.....		
699	Albite and Tourmaline.....	Haddam, Conn.	346
	Simms Collection.		
700	Sanidin in trachyte.....	Rhine, Germany.	
701	Sanidin in trachyte.....	Rhine, Germany.	
702	Oligoclase in trachyte.....		
703	Andesite.....		
704	Adularia.....	Tyrol.	
705	Adularia.....	Tyrol.	
706	Andesite in trachyte.....		
707	Amazonstone.....	Siberia.	
708	Amazonstone.....	Colorado.	
	From W. H. Strahan.		
709	Feldspar.....	New York Island.	
	Beck Collection.		
710	Feldspar.....		
711	Orthoclase in granite.....		
712	Orthoclase and Quartz.....	New York Island.	
713	Feldspar, red.....	Harlem, N. Y.	
714	Orthoclase in granite.....		
715	Orthoclase in granite.....		
716	Orthoclase.....	Moriah, Essex Co., N. Y.	
717	Feldspar.....	Rossie, St. Lawrence Co., N. Y.	212
	Beck Collection.		
718	Orthoclase and Albite.....	Brown Point.	
	Simms Collection.		
719	Feldspar (Pelunze).....	Nictervy, Rio de Janeiro.	
	Brazil Collection.		
720	Orthoclase.....		
721	Orthoclase.....		
722	Feldspar, red.....	Ticonderoga, Essex Co., N. Y.	556
	Beck Collection.		
723	Feldspar.....	Connecticut.	
	Pickett Collection.		
724	Feldspar.....	Little Falls, Herkimer Co.	437
	Beck Collection.		
725	Oligoclase and Blue Quartz.....	Bucks Co., Pa.	
	From Prof. Leeds.		

Number.

- 726 Oligoclase Westchester, Pa.
From Prof. Leeds.
- 727 Feldspar.....
Van Rensselaer Collection.
- 728 Orthoclase.....
Gebhard Collection.
- 729 Feldspar Essex Co., N. Y.
Pickett Collection.
- 730 Chondrodite, Magnetite and Calcite,
Schroon, Essex Co., N. Y.
- 731 Chondrodite and Spinel.....Rossie, St. Lawrence Co. 383
Beck Collection.
- 732 Chondrodite and Spinel..Natural Bridge, Orange Co., N.Y. 395
Beck Collection.
- 733 Chondrodite.....Amity, Orange Co., N. Y.
- 734 Chondrodite, Calcite and Graphite,
Edenville, Orange Co., N. Y.
- 735 Tourmaline.....
- 736 Tourmaline (brown)...Gouverneur, St. Lawrence Co., N. Y.
- 737 Tourmaline De Kalb, St. Lawrence Co., N. Y.
- 738 Mesolite (?)..... Bergen Hill, N. J.
- 739 Tourmaline..... De Kalb, St. Lawrence Co., N. Y.
- 740 Tourmaline
- 741 Tourmaline.....
- 742 Tourmaline.....
Van Rensselaer Collection.
- 743 Tourmaline.....
- 744 Tourmaline.....
- 745 Tourmaline.....
Van Rensselaer Collection.
- 746 Tourmaline Monroe, Conn.
- 747 Tourmaline.....
- 748 Tourmaline (black)
Van Rensselaer Collection.
- 749 Tourmaline in Quartz Chester, Mass.
- 750 Tourmaline.....
Van Rensselaer Collection.
- 751 Tourmaline 300
Simms Collection.
- 752 Tourmaline.....Warwick, Orange Co., N. Y. 580
Beck Collection.
- 753 TourmalinePort Henry, Essex Co., N. Y.
Pickett Collection
- 754 Tourmaline (brown).....
Van Rensselaer Collection.
- 755 Tourmaline (brown).....
Van Rensselaer Collection.
- 756 Tourmaline (blue)..... Massachusetts.
- 757 Tourmaline (green)
- 758 Tourmaline (Rubellite) in Albite
Van Rensselaer Collection.

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759 Tourmaline (Rubellite) in Albite.....Chesterfield, Mass.
Pickett Collection.

760 Andalusite
Van Rensselaer Collection.

761 AndalusiteLancaster.

762 AndalusiteMassachusetts.
Pickett Collection.

763 AndalusiteLancaster, Mass.?
Gebhard Collection.

764 Fibrolite (Monrolite)Monroe, Orange Co., N. Y.
Beck Collection.

765 Cyanite.....Goshen, Mass.

766 Cyanite.....
Gebhard Collection.

767 Cyanite in coarse granite.....

768 Cyanite and Quartz.....New England.

769 Cyanite and Quartz.....Chesterfield, Mass.

770 Cyanite.....

771 Cyanite (Disthene) in quartz.....Missoens, S. Pedro de Sul.
Brazilian Collection.

772 Cyanite.....
Van Rensselaer Collection.

773 TopazTrumbull, Conn.
Simms Collection.

774 Topaz

775 TopazTrumbull, Conn.
Simms Collection.

776 Topaz (green) and FluorsparTrumbull, Conn.
Gebhard Collection.

777 Topaz (Brazilian)Brazil.
From Hon. A. T. Johnson.

778 Topaz (Brazilian)Brazil.
From Hon. A. T. Johnson.

779 Topaz.P. de Minas.
Brazilian Collection.

780 DatoliteBergen Hill, N. J.

781 Datolite.....Bergen Tunnel, N. J.
From Prof. Leeds.

782 Datolite.....Bergen Hill, N. J.

783 TitaniteLewis, St. Lawrence Co.? N. Y.

784 Titanite (Sphene)...Phillips' iron mine, Putnam Co., N. Y.

785 Titanite (Sphene)...Phillips' iron mine, Putnam Co., N. Y.

786 Titanite (Sphene)..Bush's mine, Cornwall, Orange Co., N. Y.

787 Staurolite in Hornblende Slate.....

788 Staurolite 329
Gebhard Collection.

789 StauroliteVermont.

790 Staurolite and Garnet.....New York.

791 Staurolite in mica Slate.....

792 Staurolite
Van Rensselaer Collection.

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- 793 } Pectolite.....Bergen Tunnel, N. J.
 794 }
- From Prof. Leeds.
- 795 Pectolite.....Bergen Hill, N. J. 261
 Simms Collection.
- 796 Pectolite.....Bergen Hill, N. J.
 797 LaumoniteCold Spring? Putnam Co., N. Y.
 798 Laumonite
 Gebhard Collection.
- 799 Chrysocolla.....
 800 Calamine.....Franklin, N. J.
 From Prof. Leeds.
- 801 Prehnite.....Paterson, N. J.
 802 Prehnite.....
 Van Rensselaer Collection.
- 803 Prehnite.....
 Van Rensselaer Collection.
- 804 Prehnite.....
 Gebhard Collection.
- 805 Prehnite.....
 Gebhard Collection.
- 806 Prehnite.....Bellows Falls, Vt.
 Pickett Collection.
- 807 Prehnite.....
 Van Rensselaer Collection.
- 808 Apophyllite
 809 Apophyllite.....Staten Island, N. Y.
 810 Apophyllite
 811 Apophyllite.....Bergen, N. J.
 Pickett Collection.
- 812 Allophane.....Silesia, Ger.
 813 Thomsonite.....Peter's Pt., N. S.
 814 Natrolite in phonoliteGermany.
 815 Natrolite in phonoliteGermany.
 816 Natrolite.....Bergen Tunnel, N. J.
 From Prof. Leeds.
- 817 Natrolite.....
 Van Rensselaer Collection.
- 818 Chabazite and Stilbite.....
 819 Chabazite
 Van Rensselaer Collection.
- 820 Chabazite.....Germany.
 821 Chabazite.....Chester, Mass.?
 822 Chabazite.....Nova Scotia.
 823 Phillipsite (in lava).....Vesuvius, Italy.
 824 Thomsonite in lavaMt. Somma, Italy.
 825 Chabasite and HeulanditeNova Scotia.
 826 Stilbite.....Kilmalcolm, Scot.
 827 Stilbite.....
 828 Analcite.....Aussig, Bohemia.
 829 Analcite
 Van Rensselaer Collection.

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830	Analcite in malachite, with native copper.....	
831	Analcite	
	Van Rensselaer Collection.	
832	Analcite	
	Van Rensselaer Collection.	
833	Analcite	Nova Scotia.
834	Analcite	
	Van Rensselaer Collection.	
835	Analcite	
	Van Rensselaer Collection.	
836	Sepiolite (Meerschaum)	
	Pickett Collection.	
837	Talc.....	North Troy, Vt.
838	Talc.....	England.
839	Talc.....	Smithfield, R. I.
	Pickett Collection.	
840	Talc.....	Connecticut.
841	Talc with Staurolite.....	
842	Talc (foliated).....	Bridgewater, Vt. 78
	Simms Collection.	
843	Steatite.....	Newfane, Vt.
844	Talc, Fluorite, etc.....	Amity, Orange Co., N. Y. 646
	Beck Collection.	
845	Talc.....	Fitchburg, Mass.
	Pickett Collection.	
846	Talc	
	Pickett Collection.	
847	Talc and Fluorspar	Amity, Orange Co., N. Y.
848	Talc.....	
	Van Rensselaer Collection.	
849	Talc.....	Middlefield, Mass.
850	Talc.....	
	Gebhard Collection.	
851	Steatite.....	Jefferson Co., N. Y.
852	Steatite.....	Grafton, Vt.
853	Steatite.....	
854	Serpentine (precious).....	Newburyport, Mass.
855	Serpentine with Chrysotile	Newburyport, Mass.
856	Serpentine (precious).....	Massachusetts.
857	Serpentine (precious).....	Piedmont, Italy.
858	Serpentine	
	Gebhard Collection.	
859	Serpentine.....	Phillipstown, Putnam Co.
	Beck Collection.	
860	Serpentine	Amity, Orange Co., N. Y.
861	Serpentine and Calcite.....	Port Henry, Essex Co., N. Y.
862	Serpentine	New Rochelle, Westchester Co., N. Y.
863	Serpentine.....	New Rochelle, Westchester Co., N. Y.
864	Serpentine	Mexico.
865	Serpentine	Fort Ann, Washington Co., N. Y.
866	Serpentine (brown).....	Middlefield, Mass.
867	Serpentine (Marmolite).....	Hoboken, N. J.

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868	Serpentine (Marmolite).....	Hoboken, N. J.	
869	Serpentine (Marmolite).....	Hoboken, N. J.	
870	Serpentine (Marmolite).....		
871	Marmolite.....	Staten Island, N. Y.	
872	Serpentine (Marmolite).....	Staten Island, N. Y.	
873	Serpentine (Marmolite).....	Hoboken, N. J.	
874	Mamolite and Serpentine		
875	Serpentine and Chrysotile..	Phillipstown? Putnam Co., N. Y.	
876	Cerolite.....	Stony Pt., Rockland Co., N. Y.	18
	Beck Collection.		
877	Kaolinite		
878	Kaolinite		
879	Kaolinite		
880	Kaolinite		95
	Brazilian Collection.		
881	Kaolinite		
882	Clay (refractory).....	Belim, P. de Posa.	99
	Brazilian Collection.		
883	Kaolin.....	Thesfureiro, P. de Minas.	97
	Brazilian Collection.		
884	(Argillaceous) schist.....		
	Brazilian Collection.		
885	Clay (siliceous)		98
	Brazilian Collection.		
886	Schistose slate.....		
	Brazilian Collection.		
887	Vermiculite	Conshohocken, Pa.	
	From Prof. Leeds.		
888	Iolite	Haddam, Conn.	
	Pickett Collection.		
889	Iolite.....	Haddam, Conn.	
890	Microlite.....	Chesterfield, Mass.	
891	Clintonite	Amity, Orange Co., N. Y.	
	Simms Collection.		
892	Clintonite.....	Amity, Orange Co., N. Y.	
893	Pimelite.....	Silesia.	
894	Pimelite	Silesia.	
895	Jefferisite.....	near Westchester, Pa.	
	From Prof. Leeds.		
896	Chlorite, with magnetite.....		
	Gebhard Collection.		
897	Clinoclre....	near Westchester, Pa.	
	From Prof. Leeds.		
898	Apatite.....		
	Pickett Collection.		
899	Apatite.....		
	Gebhard Collection.		
900	Apatite.....		
901	Apatite.....		
	Pickett Collection.		
902	Apatite		

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- 903 Apatite
Van Rensselaer Collection.
- 904 Apatite.....Crown Point, Essex Co., N. Y.
- 905 Apatite on galenite.....
From Dr. Crary, Albany.
- 906 ApatiteEdenville, Orange Co., N. Y.
- 907 Apatite (Eupyrchroite)Crown Point, Essex Co., N. Y.
- 908 TorberniteEurope.
- 909 PyromorphiteGermany?
Van Rensselaer Collection.
- 910 Pyromorphite and mimetite.....Cumberland, Eng.
(Coldbeck Fells.)
- 911 Pyromorphite.....
Van Rensselaer Collection.
- 912 Vivianite.....Mendham, N. J.?
Gebhard Collection.
- 913 VivianiteMendham, N. J.?
- 914 Wavellite
Van Rensselaer Collection.
- 915 Wavellite
Van Rensselaer Collection.
- 916 Wavellite
Van Rensselaer Collection.
- 917 WavelliteRochester, N. Y.
- 918 Wavellite.....Steamboat, Pa.
- 919 Erythrite
- 920 Erythrite
- 921 Erythrite (cobalt bloom), Antonio Pereira, P. de Minas, Brazil. 92
Brazilian Collection.
- 922 Soda nitre.....Peru.
From Miss E. Fischer.
- 923 BoraxBorax lake, California.
- 924 WarwickiteEdenville, Orange Co., N. Y.
- 925 Volborthite
- 926 Alum slate.....Hoosick, N. Y.
- 927 Barite.....Max Point? Jefferson Co.
- 928 Barite and Strontianite.....Schoharie, N. Y.
- 929 Barite
Pickett Collection.
- 930 Barite.....Little Falls, Herkimer Co., N. Y.
- 931 Barite.....St. Lawrence Co., N. Y.
- 932 Barite.....Devonshire, Eng.
- 933 Barite.....Watertown, Jefferson Co., N. Y. 74
Simms Collection.
- 934 Barite
Van Rensselaer Collection.
- 935 Barite (in Septarium).....Middleburg, Schoharie Co., N. Y.
- 936 Barite.....Cacapava, P. S. Pedro do Sul.
Brazilian Collection.
- 937 Barite.....Gouverneur, St. Lawrence Co., N. Y.
- 938 Barite
Van Rensselaer Collection.

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- 939 Barite Pickett Collection.
- 940 Barite and Fluorite Van Rensselaer Collection.
- 941 Barite and Calcite Van Rensselaer Collection.
- 942 Barite Van Rensselaer Collection.
- 943 Barite Cheshire, Conn.
From H. S. Peck.
- 944 Barite N. New York.
Pickett Collection.
- 945 Barite Gebhard Collection.
- 946 Barite Schoharie, Schoharie Co., N. Y.
- 947 Barite
- 948 Barite Gouverneur, St. Lawrence Co., N. Y.
- 949 Barite
Van Rensselaer Collection.
- 950 Barite
Van Rensselaer Collection.
- 951 Barite
- 952 Barite De Kalb, St. Lawrence Co., N. Y.
- 953 Barite
- 954 Barite
- 955 Barite
Van Rensselaer Collection.
- 956 Barite Carlisle, Schoharie Co., N. Y.
Simms Collection.
- 957 Barite Pillar Point, Jefferson Co., N. Y.
- 958 Barite
Van Rensselaer Collection.
- 959 Celestite Stark, Herkimer Co., N. Y. 1137
Beck Collection.
- 960 Celestite
Beck Collection.
- 961 Celestite Syracuse, Onondaga Co., N. Y.
Beck Collection.
- 962 Celestite Syracuse, Onondaga Co., N. Y.
- 963 Celestite
- 964 Celestite Tyrone, Pa.
From Prof. Leeds.
- 965 Anglesite, Cerussite and Galenite,
Village l'Orient, Island St. Baits.
- 966 Crocoite
Van Rensselaer Collection.
- 967 Crocoite
Van Rensselaer Collection.
- 968 Crocoite
Van Rensselaer Collection.
- 969 Crocoite
Van Rensselaer Collection.

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- 970 Crocoite
Van Rensselaer Collection.
- 971 Crocoite
Van Rensselaer Collection.
- 972 Crocoite
Van Rensselaer Collection.
- 973 Crocoite
Van Rensselaer Collection.
- 974 Crocoite
Gebhard Collection.
- 975 Crocoite (chromate of lead).....Goyabira, P. de Minas.
Brazilian Collection.
- 976 Gypsum.....Grand Rapids, Mich.
From C. K. Williams, Vermont.
- 977 Gypsum (fibrous).....Ega, P. d'Amazona.
Brazilian Collection.
- 978 Gypsum
- 979 Gypsum
- 980 Gypsum
- 981 Gypsum.....Grand Rapids, Mich.
From J. Ball, Kent county.
- 982 Gypsum (fibrous).....
Van Rensselaer Collection.
- 983 Gypsum (fibrous).....
Van Rensselaer Collection.
- 984 Gypsum
- 985 Gypsum
- 986 Gypsum. Scottsville, Monroe Co., N. Y.
Pickett Collection.
- 987 Gypsum.....Grand Rapids, Mich.
Pickett Collection.
- 988 Gypsum
- 989 Gypsum.....Lockport, Niagara Co., N. Y.
- 990 Gypsum.....Grand Rapids, Mich.
Pickett Collection.
- 991 Gypsum.....
Van Rensselaer Collection.
- 992 Gypsum.....Grand Rapids.
- 993 Gypsum.....Paris, France.
- 994 Gypsum.....Grand Rapids, Mich.
- 995 Gypsum.....Paris, France.
- 996 Gypsum.....Grand Rapids.
- 997 Gypsum (fibrous).....D'Alcantara, P. Maranhao.
Brazilian Collection.
- 998 Gypsum.....Lockport, Niagara Co., N. Y.
Pickett Collection.
- 999 Gypsum (fibrous)
Van Rensselaer Collection.
- 1000 Gypsum.....Alabaster Bay, Mich.
- 1001 Alum.....
- 1002 Gypsum ?.....

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- 1003 Gypsum Auburn, Cayuga Co., N. Y.
From Fred. Starr, Auburn.
- 1004 Gypsum Do Appody, P. de Rio Grande del Norte. 25
Brazilian Collection.
- 1005 Gypsum (water worn) Onondaga Co., N. Y.
- 1006 Gypsum De Belmonte, P. de Ceara. 19
Brazilian Collection.
- 1007 Gypsum Grand Rapids, Mich.
From C K. Williams.
- 1008 Gypsum.....
- 1009 Gypsum Ellsworth.
Gebhard Collection.
- 1010 Gypsum Ellsworth.
From Dr. Crary.
- 1011 Gypsum.....
Gebhard Collection.
- 1012 Gypsum
Van Rensselaer Collection.
- 1013 Gypsum Ellsworth.
Gebhard Collection.
- 1014 Gypsum Scottville, Monroe Co., N. Y.
- 1015 Calcite
- 1016 Calcite Rossie, St. Lawrence Co., N. Y.
- 1017 Calcite Ox Bow, Jefferson Co., N. Y.
- 1018 Calcite Ox Bow, Jefferson Co., N. Y.
- 1019 Calcite Ox Bow, Jefferson Co., N. Y.
- 1020 Calcite Ox Bow, Jefferson Co., N. Y.
- 1021 Calcite Port Henry, Essex Co., N. Y.
- 1022 Calcite Port Henry, Essex Co., N. Y.
- 1023 Calcite and pyrite Rossie, St. Lawrence Co., N. Y.
- 1024 Calcite Europe.
- 1025 Calcite
- 1026 Calcite Bergen Tunnel, N. J.
From Prof. Leeds.
- 1027 Calcite, dolomite, etc.,
Spraker's Basin, Montgomery Co., N. Y.
- 1028 Calcite
- 1029 Calcite (red) Cornwall, Orange Co., N. Y. 293
Beck Collection.
- 1030 Calcite
Van Rensselaer Collection.
- 1031 Calcite Port Henry, Essex Co., N. Y.
- 1032 Calcite, with indurated Bitumen in dolomite,
Flat Creek, Montgomery Co., N. Y.
- 1033 Calcite
Van Rensselaer Collection.
- 1034 Calcite (Dog-tooth Spar) Lockport, Niagara Co., N. Y.
- 1035 Calcite Rossie, St. Lawrence Co., N. Y. 301
Beck Collection.
- 1036 Calcite Lockport, Niagara Co., N. Y.
Simms Collection.

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- 1037 Calcite
Gebhard Collection.
- 1038 CalciteRossie, St. Lawrence Co., N. Y.
- 1039 Calcite
1040 Calcite
1041 CalciteOx Bow, Jefferson Co., N. Y.
- 1042 Calcite.....Schoharie, N. Y.
- 1043 Calcite and quartzBurlington, Iowa.
Pickett Collection.
- 1044 CalciteRossie, St. Lawrence Co., N. Y.
- 1045 Calcite and graphite.....Ticonderoga, Essex Co., N. Y.
- 1046 Calcite
Van Rensselaer Collection.
- 1047 Calcite
1048 Calcite.....Grand Rapids, Mich.
Pickett Collection.
- 1049 Calcite
1050 Calcite
1051 Calcite
Van Rensselaer Collection.
- 1052 Calcite (Hudson River Group)..... N. Y.
From J. McArdle, Albany.
- 1053 Calcite..... Middleville, Herkimer Co., N. Y.
- 1054 Calcite
1055 CalciteRossie, St. Lawrence Co., N. Y.
- 1056 Calcite
Van Rensselaer Collection.
- 1057 Calcite
Van Rensselaer Collection.
- 1058 Calcite
Van Rensselaer Collection.
- 1059 Calcite and quartz....
Van Rensselaer Collection.
- 1060 Calcite.....
Simms Collection.?
- 1061 Calcite.....Grand Rapids, Mich.
Pickett Collection.
- 1062 Calcareous tufa ...Boiling Spring, Humboldt Co., Nevada.
From G. W. Pine, Herkimer.
- 1063 Calcite
Gebhard Collection.
- 1064 Calcite coated with hyd. oxide of iron,
Mineville, Essex Co., N. Y.
- 1065 Stalagmite..... Ball's Cave, Schoharie Co., N. Y.
- 1066 Limerock.....Bethlehem, Palestine.
- 1067 Calcite
Van Rensselaer Collection.
- 1068 Stalactite
1069 } StalactiteTodd's Cave, Ky. 239
1070 }
- Simms Collection.

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1071	Stalagmite.....Howe's Cave, Schoharie Co., N. Y.
1072	Stalagmite.....Ball's Cave, Schoharie Co., N. Y.
1073	Stalagmite.....Ball's Cave, Schoharie Co., N. Y.
1074	Stalactite.....Ball's Cave, Schoharie Co., N. Y.
1075	Stalagmite and arragonite, Gebhard's Cave, Schoharie Co., N. Y.
1076	Stalactite.....Todd's Cave, Kentucky. 239 Simms Collection.
1077	Stalagmite (polished) ....Ball's Cave, Schoharie Co., N. Y.
1078	Stalagmite
1079	Stalactite.....Howe's Cave, Schoharie Co., N. Y.
1080	Calcite (geode)..... Pickett Collection.
1081	Calcite
	Van Rensselaer Collection.
1082	Calcite
1083	Calcite
1084	Calcite and Quartz..... Van Rensselaer Collection.
1085	Calcite and Galenite.....Rossie, St. Lawrence Co., N. Y.
1086	Calcite
1087	Calcite
1088	Calcite
1089	Calcite
1090	Calcite
1091	Calcite and Quartz..... Van Rensselaer Collection.
1092	Calcite and Quartz..... Van Rensselaer Collection.
1093	Calcite .....Ox Bow, Jefferson Co., N. Y.
1094	Calcite.....Jefferson Co., N. Y.
1095	Calcite.....Parish ore bed, St. Lawrence Co., N. Y.
1096	Calcite .....Rossie, St. Lawrence Co., N. Y.
1097	Calcite (Dogtooth and Pearl Spar) .....Lockport, N. Y.
1098	Calcite (Dogtooth Spar).....Lockport, Niagara Co., N. Y.
1099	Calcite (Dogtooth Spar).....Lockport, Niagara Co., N. Y.
1100	Calcite .....Rossie, St. Lawrence Co., N. Y.
1101	Calcite (Dogtooth and Pearl Spar), Lockport, Niagara Co., N. Y.
1102	Calcite.....Ox Bow, Jefferson Co., N. Y.
1103	Calcite .....Middleburg, Schoharie Co., N. Y.
1104	Calcite.....Jefferson Co., N. Y.
1105	Fontainbleau Limestone..... Van Rensselaer Collection.
1106	Fontainbleau Limestone..... Van Rensselaer Collection.
1107	Fontainbleau Limestone..... Van Rensselaer Collection.
1108	Fontainbleau Limestone..... Van Rensselaer Collection.
1109	Calcite

Number.

- 1110 Calcite, blue Diana, Lewis Co., N. Y.
 1111 Calcite Diana, Lewis Co., N. Y.
 1112 Calcite..... St. Augustine, Fla.
 1113 Calcite..... Monroe, Orange Co., N. Y.
 1114 Calcareous Schist..... Batunte, P. de Ceara.
 Brazilian Collection.
 1115 Marble (Italian, white) Italy.
 From Capitol, Washington.
 1116 Marble (white)..... Plains of Marathon, Greece.
 1117 Marble (Lamellar, white) Texas.
 Pat. Office, Washington.
 1118 Marble (Crystalline, white) Post-office, Baltimore, Md.
 1119 Marble..... Massachusetts.
 1120 Marble..... De Campos, P. de Rio de Janeiro.
 Brazilian Collection.
 1121 Marble (Tenn.)..... Hawkins Co., Tenn.
 1122 Marble (Calico) Montpelier, Vt.
 1123 Marble (Breccia)..... Pyrenees, Spain.
 Pickett Collection.
 1124 Marble (Coralline)..... Bavarian Alps, Europe.
 Pickett Collection.
 1125 Marble (Statuary)..... Middlebury, Vt.
 Pickett Collection.
 1126 Marble (Variegated, Italian)..... Italy.
 Simms Collection.
 1127 Marble (Italian Dove)
 1128 Marble..... Italy?
 1129 Marble (Egyptian)
 Pickett Collection.
 1130 Marble
 Gebhard Collection.
 1131 Limestone, (black) polished
 1132 Marble (white) with Talc.....
 1133 Marble (white) N. Lee, Mass.
 1134 Marble (Dove) Swanton, Vt.
 Gebhard Collection.
 1135 Marble, black Isle La Motte, Vt.
 1136 Marble, Lower limestone, perhaps Trenton.....
 1137 Marble, black Galway, Ireland.
 Gebhard Collection.
 1138 Marble, black
 1139 Marble, gray
 1140 Marble, black
 1141 Marble, birdseye Kingston.
 1142 Marble Lisbon, Portugal.
 Pickett Collection.
 1143 Marble, white
 1144 Marble, Coralline..... Bavarian Alps.
 Pickett Collection.
 1145 Marble, white Stockbridge, Mass.
 1146 Marble, striped

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- 1147 Marble, "Italian Bardilla"
- 1148 Marble, encrinal.....West Camp, Ulster Co., N. Y.
From J. H. Gould.
- 1149 Marble
Pickett Collection.
- 1150 MarbleColumbia Co., N. Y.
- 1151 Marble, encrinalAshland, Devonshire, Eng.
Pickett Collection.
- 1152 Marble, Shell.....Derbyshire, Eng.
Pickett Collection.
- 1153 Limestone, Black River.....
- 1154 Marble, Egyptian
Gebhard Collection.
- 1155 Marble, VariegatedDevonshire, Eng.
Pickett Collection.
- 1156 Marble, Concretionary.....Derbyshire, Eng.
Pickett Collection.
- 1157 Limestone, Fibrous.....England.
- 1158 Marl.....Copenhagen, Lewis Co., N. Y.
- 1159 Marl.....Apulia, Onondaga Co., N. Y.
- 1160 Marl.....Claverack, Columbia Co., N. Y.
- 1161 Marl, Calcareous.....Fort Ann, Washington Co., N. Y.
- 1162 MarlSyracuse, Onondaga Co., N. Y.1114
Beck Collection.
- 1163 Limestone, Concreted.....Rochester, N. Y.
Pickett Collection.
- 1164 Limestone, Hydraulic,
Van Epps Quarry, Amsterdam, Montgomery Co., N. Y. 425
Beck Collection.
- 1165 Limestone, Hydraulic.. . .Manlius, Onondaga Co., N. Y.
- 1166 Limestone, Hydraulic.....De Bacauga, P. de Maranhao.
Brazilian Collection.
- 1167 Limestone.....S. Jo d'Ypanama, P. de S. Paulo. 24
Brazilian Collection.
- 1168 Limestone.....Vassabarriz, P. de Sergipe. 23
Brazilian Collection.
- 1169 Limestone Marble.....Itabira de Campo, P. de Minas. 109
Brazilian Collection.
- 1170 Limestone, Hydraulic.....De Chepada, P. de Maranhao. 14
Brazilian Collection.
- 1171 Limestone, Saccharoidal.....Terra des Asperesas. 15
Brazilian Collection.
- 1172 Limestone.....Maijeus de Rio de Francisco do Norte. 17
Brazilian Collection.
- 1173 Marble, Egyptian
- 1174 Septarium
- 1175 LimestoneCamravieiras, P. de Bahia.
Brazilian Collection.
- 1176 Sea Shells cemented by Silica ("Coquina stone")..Florida.
- 1177 Marble, variegated....Pleasant Valley, Dutchess Co., N. Y.
- 1178 Marble, variegated

Number.

- 1179 Stalagmite..... Ball's Cave, Schoharie Co., N. Y.
 1180 Stalagmite..... Ball's Cave, Schoharie Co., N. Y.
 1181 Stalagmite..... Ball's Cave, Schoharie Co., N. Y.
 1182 Stalagmite..... Ball's Cave, Schoharie Co., N. Y.
 1183 Stalactite..... Ball's Cave, Schoharie Co., N. Y.
 1184 Calcareous Tufa..... Sharon Springs, Schoharie Co., N. Y. 173
 Simms Collection.
 1185 Calcareous Tufa..... Schoharie, Schoharie Co., N. Y. 26
 Simms Collection.
 1186 Calcareous Tufa..... Van Hornesville, Herkimer Co., N. Y.
 1187 Stalactite..... Gruta de Inferno, P. de Matte Grosso.
 1188 Calcareous Tufa..... Jamesville, Onondaga Co., N. Y.
 1189 Calcareous Tufa..... Litchfield, Herkimer Co., N. Y. 110
 Simms Collection.
 1190 Shells cemented ("Coquina stone")..... Jacksonville, Fla.
 1191 Lime rock..... Bethlehem, Palestine. 52
 1192 "Coquina stone"..... St. Augustine, Fla.
 1193 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1194 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1195 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1196 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1197 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1198 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1199 Dolomite (Pearl Spar)..... Rossie, St. Lawrence Co., N. Y.
 1200 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1201 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1202 Dolomite (Pearl Spar)..... Lockport, Niagara Co., N. Y.
 1203 Dolomite..... Honeoye Falls, St. Lawrence Co., N. Y.
 1204 Dolomite.....
 1205 Dolomite..... Cummington, Mass.
 Pickett Collection.
 1206 Dolomite..... Parish mine, St. Lawrence Co., N. Y.
 1207 Dolomite..... Lee, Mass.
 Pickett Collection.
 1208 Dolomite..... Lockport, Niagara Co., N. Y.
 Pickett Collection.
 1209 Dolomite (Pearl Spar) in Talc..... Marlboro, Vt.
 1210 Dolomite (Rhomb Spar) in Talc..... Marlboro, Vt.
 1211 Magnesite in granite.....
 1212 Magnesite in Serpentine..... Hoboken, N. J.
 1213 Magnesite..... Chester Co., Penn.
 1214 Dolomite (Gurhofite).....
 1215 Siderite (Spathic Iron).....
 Van Rensselaer Collection.
 1216 Siderite.....
 1217 Siderite (Spathic Iron) and Quartz,
 Mine Hill, Roxbury, Conn.
 1218 Siderite (Spherosiderite)..... Hanau, Steinheim, Ger.
 1219 Siderite (Spherosiderite)..... Hanau, Steinheim, Ger.
 1220 Siderite (Spathic Iron)..... Antwerp, Jefferson Co., N. Y.
 Pickett Collection.

Number.

- 1221 Siderite (Spathic Iron).....Rochester, Monroe Co., N. Y.
Pickett Collection.
- 1222 Siderite.....
- 1223
- 1224 Siderite and Galenite.....Harz, Saxony.
Gebhard collection.
- 1225 Siderite (Spathic Iron) and Cacozenite,
Antwerp, Jefferson Co., N. Y.
Pickett Collection.
- 1226 Siderite and Galena..... Albemarle Co., Va.
- 1227 Siderite.....
- 1228 Siderite and Zinc blende.....Roxbury, Conn.
- 1229 Siderite (Spathic Iron).....
Van Rensselaer Collection.
- 1230 Siderite.....
- 1231 Siderite.....
- 1232 Siderite (Spathic Iron) and Galena.....Roxbury, Conn.
- 1233 ArragoniteBall's Cave, Schoharie Co., N. Y. 148
Simms Collection.
- 1234 Arragonite.....Schoharie, Schoharie Co., N. Y.
Gebhard Collection.
- 1235 Arragonite
Van Rensselaer Collection.
- 1236 Arragonite
Van Rensselaer Collection.
- 1237 Arragonite
Van Rensselaer Collection.
- 1238 Arragonite
- 1239 Arragonite.....
Van Rensselaer Collection.
- 1240 Arragonite
- 1241 Arragonite (nodules),
Mammoth Hot Springs, Yellowstone Nat. Park, Montana.
- 1242 Arragonite.....Hot Springs, Venus bath, Yellowstone.
- 1243 Arragonite.....Hot Springs, Venus bath, Yellowstone.
- 1244 Arragonite..
Van Rensselaer Collection.
- 1245 Zaratite.....Texas, Lancaster Co., Pa.
- 1246 Hydrozincite.....Franklin, N. J.
- 1247 Malachite
Van Rensselaer Collection.
- 1248 MalachiteArizona.
- 1249 Malachite.....Melancias, P. de Minas.
Brazilian Collection.
- 1250 Malachite.....
Gebhard Collection.
- 1251 Malachite..... Amador Co., Cal.
- 1252 Malachite.....
Gebhard Collection.
- 1253 MalachiteFlemington, N. J.
Gebhard Collection.

Number.

1254	Malachite	Schuyler mines, Belleville, N. J.	
1255	Malachite	Bristol, Conn.	
	From A. Marks.		
1256	Malachite.....	Lake Superior.	
1257	Malachite.....	Rio Jauru, P. de Mattô Grosso.	
	Brazilian Collection.		
1258	Malachite.....		
1259	Malachite.....		
1260	Malachite.....	Cacapava, S. Pedro do Sul.	
	Brazilian Collection.		
1261	Malachite.....		
1262	Hydromagnesite.....	Hoboken, N. J.	
	From Prof. Leeds.		
1263	Malachite.....		
1264	Malachite.....		
	Van Rensselaer Collection.		
1265	Malachite.....	Chili, S. America.	
	Pickett Collection.		
1266	Malachite and Caprite	Minas Salado, Brazil.	
1267	Malachite.....		
	Gebhard Collection.		
1268	Azurite		
1269	Azurite and Malachite.....		
1270	Azurite.....		
	Van Rensselaer Collection.		
1271	Azurite.....		
1272	Azurite and Chrysocolla.....		
1273	Malachite and Azurite on chalcopyrite		
1274	Peat	Cayuga Co., N. Y.	121
	Simms Collection.		
1275	Peat	Cayuga Co., N. Y.	
	Simms Collection.		
1276	Lignite	Manaos, P. d'Amazona.	8
	Brazilian Collection.		
1277	Coal.....	Do Jaguarao, S. Pedro do Sul.	
	Brazilian Collection.		
1278	Peat.....	Snedecor's landing, Rockland Co., N. Y.	
1279	Brown-Coal.....	Curral Alto, S. Pedro de Sul.	5
1280	Lignite.....	Camaragibe, P. de Alageas.	9
	Brazilian Collection.		
1281	Coal.....	Rock Spring, Nat. Park, Wyoming.	
1282	Lignite.....	Barcellos, P. de Bahia.	
	Brazilian Collection.		
1283	Coal	Do Jaguarao, S. Pedro do Sul.	
	Brazilian Collection.		
1284	Brown Coal.....		2
	Brazilian Collection.		
1285	Brown Coal.....		4
	Brazilian Collection.		
1286	Brown Coal.....		1
	Brazilian Collection.		

Number.

- 1325 Bitumen (indurated).. Flat Creek, Montgomery Co., N. Y.
 1326 Bitumen (indurated)...Flat Creek, Montgomery Co., N. Y.
 1327 Bituminous Schist.....Sarocaba, P. de S. Paulo.
 Brazilian Collection.
 1328 Bituminous Coal.....Mt. Lebanon.
 1329 Elaterite, (mineral Caoutchouc)
 1330 Elaterite, (mineral Caoutchouc)
 1331 Bitumen California.
 From George W. Pine, Herkimer.
 1332 Succinite (Amber).....New Jersey.
 1333 Asphaltum.....Dead Sea.
 1334 Asphaltum (Albertite).....Albert mine, Nova Scotia.
 Pickett Collection.
 1335 Asphaltic Limestone..... Maran (Ilheos), P. de Bahia. 11
 Brazilian Collection.
 1336 Bituminous Schist..... Tabatinga, P. de Amazona. 7
 Brazilian Collection.
 1337 Bitumen (indurated)
 1338 Schist, fetid..... Da'Chapada, P. de Maranhao, Brazil.
 1339 Illuminating Clay Camauru, P. de Bahia.
 Brazilian Collection.
 1340 AnthraciteLehigh Co., Penn. 287
 Simms Collection.
 1341 Gypsum.....Mammoth Cave, Kentucky.
 From Henry Russel.
 1342 Gypsum.....Mammoth Cave, Kentucky.
 From Henry Russel.

REPORT OF THE STATE GEOLOGIST.

To the Honorable the Board of Regents of the University of the State of New York :

Under the provisions of chapter 355 of the Laws of 1883, it is provided that the State Geologist shall communicate to the Board of Regents the results of his scientific researches, in lieu of the annual reports previously required by law.

In presenting for the first time a report of the State Geologist to the Regents of the University, I beg leave to state some facts which may not be familiar to every member of the Board.

When the preparation of the Palæontology of the State was committed to my charge as State Geologist, no annual reports were required, as I have elsewhere stated, and this I believe to have been unfortunate, since the long intervals between the publication of the quarto volumes left the public uninformed of the progress of the work, except as incidentally shown in the publications of the State Museum. Finally in 1881, the Legislature incorporated in the general appropriation bill a clause making it "the duty of the State Geologist to communicate to the Legislature, on or before the first day of March of each and every year, a report upon the condition of any work for the State upon which he may be engaged." In accordance with this requirement, three reports have been submitted to the Legislature. Copies of these reports are herewith communicated, and from their contents and the present report, it will be seen what has been already accomplished, and what is the present condition of the work which has been committed to the State Geologist.

The report made to the Legislature in 1882 presents a general statement of the nature of the work, with an enumeration of the volumes published up to that time, and the condition of the work then in progress. In order to give some definite idea regarding the work which at that time occupied the State Geologist, the report was accompanied by a synopsis of the fossil Lamellibranchiate shells, with illustrations, in twelve plates, giving the principal genera known in the upper members of the New York Geological series. As therein stated, eighty plates of this class of fossils had already been lithographed and printed many years before, but no provision existed for publication. Since that time, a law has been passed for the completion of the work, and a volume embracing descriptions and illustrations of less than one-half the known species of that class of fossils, in the rocks mentioned, has been finished. The printing of the remaining portion, Part II, of the Lamellibranchiata has been delayed, in the first place by my own illness, and since October, by the necessity of preparing material to illustrate the mineral resources of the State of New York in the New Orleans Exposition. This portion of the work will however soon be in the hands of the printer.

In the report made to the Legislature in 1883, I have given a resumé of the condition of the work done and in progress. In order to present

before the public some tangible proof of the statements therein and previously made, I communicated a special paper on the relations of certain genera of the Bryozoans, together with copies of the plates of Corals and Bryozoans, as far as completed, which go to make up Vol. VI of the Palæontology; and also a set of twenty-seven plates of Brachio-poda, which had been completed many years since, together with explanations of the same. All the plates here mentioned have been reproduced in Photo-Lithography, and serve to illustrate the character and scope of two of the volumes of Palæontology yet to be published.

The report made to the Legislature in 1884 contains little beyond the descriptions of species of Bryozoans which are to be included in Vol. VI of the Palæontology of New York.

With the report of 1883, I communicated an outline map as a basis for a geological map of the State, together with colored maps, of some portions of the country which had been more critically studied, for incorporation in the general map. A contract was made by the State printer with Messrs. Julius Bien & Co., of New York to prepare a base for this geological map. A proof sheet of the western half of the map was finished, and this portion was returned with corrections. No complete copy of this map was furnished till the spring of 1884. A critical examination of the map showed such deficiencies in the representation of the drainage and other important features, that it was impossible to lay down accurately the limits of the geological formations. This deficiency may be remedied when the engraver shall have transferred, from a more correct topographical map, the water-courses which will often mark the boundaries or the limits of succession in the geological formations.

Owing to the accumulation of work, both preparatory and for several years in the hands of the printer, it was found impossible to give the time necessary for the completion of a geological map which would be worthy of publication by the State of New York. To issue a map based upon the work done more than forty-five years ago would have been inexcusable, and with no means for field-work at the disposal of the State Geologist he has been able to do little more than to study and determine some points or small areas of country, either by himself or by the aid of assistants engaged in the collection of fossils. He has also, in former years, and from time to time, employed special assistants at his own personal expense and without any appropriation from the State.

In 1881 the Legislature appropriated the sum of \$1,000 for the purposes of work upon certain geological formations in the southern counties of the State, preparatory for the completion of the Geological map. This appropriation was vetoed by the Governor. The field-work, however, had already been commenced, and it was continued for the season at the personal expense of the State Geologist.

During the past year some geological work was done in Otsego and Chenango counties, with a view of comparison with the results of work done in that region between 1868 and 1871. In the autumn of last year (1884), I employed Mr. C. E. Hall to make some investigations for rectifying the limits of the geological formations in Saratoga, Warren and Washington counties, which we know to be incomplete and erroneous in their representation on the map. The investigation, however, was interrupted after a month of field-work, and the results, while contribut-

ing much to our knowledge of the limits and trend of certain formations, showed more clearly the necessity of farther exploration, before any creditable geological map of that part of the State can be completed.

I would most earnestly recommend that the completion of this important field-work be undertaken during the coming season, and that the State Geologist be authorized to employ some competent person under his immediate supervision to carry on the work in a systematic manner to its completion.

Some important contributions to our knowledge of the limits of the Chemung and Waverly groups, in the south-western part of the State and adjacent parts of Pennsylvania, have been made by Mr. C. E. Beecher, of the State Museum, as the results of his own observations and those of Mr. F. A. Randall, of Warren, Penn. Our information regarding the position of the Panama conglomerate of the Chemung group in Chautauqua county, and the relation of the upper members of this group with the Waverly group above, has been materially enhanced through the investigations made by Dr. J. W. Hall and Mr. George B. Simpson in their field work and collection of fossils during the past autumn in the same part of the country.

In the mean time (1884) Major Powell, Director of the United States Geological Survey, had proposed to complete and publish a geological map of the three States, New York, New Jersey and Pennsylvania, with a view of illustrating the geological order, subdivisions and nomenclature of the older formations in those States where the earlier geological surveys had already accomplished so much work. To aid in this object I furnished a copy of the map engraved by Julius Bien & Co., together with other maps, containing all the geological information possessed by us, for the use of the United States Geological Survey. This information has been transferred to a map more correct in its topography and on a larger scale; but since the accurate limits of the geological formations in the State of New York are confessedly incomplete, it is consequently impossible to satisfactorily adjust the New York cartography to that of Pennsylvania, and the publication of the combined map has been deferred.

Since the passage of the law extending the Geological and Geographical Surveys of the General Government over all the States and Territories of the Union I have sought to aid in establishing a cordial co-operation between the several State Geologists and the Director of the United States Geological Survey. Although at first opposed to and protesting against such extension of the survey by the General Government, I have become convinced, from my own experience, that few, if any, of the individual States will ever provide the necessary means for carrying on to proper completion the work of a geological survey.

In the State of New York—the most liberal, perhaps, of all the States in its publications—the work has been carried on under great disadvantages, delays, and great loss of time, and always with an element of uncertainty. At no time in the past has the State Geologist felt secure in the necessary legislative support for the completion of the work in which he has been engaged. In the original plan and organization of the Palæontological work, the great importance and final necessity of an accurate geological map of the State had not been sufficiently recognized, a desideratum so absolutely indispensable for the

proper appreciation of its Palæontology, for the intelligent estimation of its own mineral and economic resources, and its vital relations to adjacent States. Feeling that the reputation of the State was involved in this matter, as well as his own personal reputation, your State Geologist, has sought to overcome the difficulties in the way by availing himself of the co-operation kindly offered by the Director of the United States Geological Survey, to aid in carrying out the original plan of our own survey, and in completing a proper geological map of the State, for publication by the Legislature of New York.

Some time since Major Powell offered to send a competent man to Albany to color a geological map under my direction. Pursuant to this arrangement Mr. W. J. McGee, one of the geologists in the United States Geological Survey, and a most able geological cartographer, came to Albany to carry out this plan. He also made, with me, several excursions into the field for the purpose of correcting former observations and of obtaining more accurate data for the completion of a geological map. We have been extremely careful to color no part of the map where the geological structure is not known, or where grave doubts exist regarding the received opinions of the geological structure and relations. Under this restriction a very considerable portion of the map will remain uncolored, but we shall have the great satisfaction of seeing what part of the State is known and what are the limits and extent of the unknown or incompletely determined areas ; — those where critical work must be done before a complete geological map of the State can be presented.

The advantages of thus leaving uncolored all that is not fully known, or which requires further investigation, as in the instance cited of Saratoga and Warren counties, as also considerable portions of Washington, Rensselaer and Columbia counties, are that this knowledge may be introduced and expressed upon the map as it shall be ascertained by careful observation.

By the arrangements thus made I shall be able to present a colored copy of the geological map of the State, restricted as above, during the early part of February, which will be communicated to the Legislature during that month.

I may state in this place that if the Legislature refuse to order the publication of this map the United States Geological Survey will undertake its publication. I cannot believe, however, that there remains so little State pride as to permit this ; still there will be, in such case, no other alternative.

There are many reasons why I greatly prefer to accept the co-operation of the United States Geological Survey instead of leaving the control of the work in the hands of that organization ; and, also, I believe that the Director of the Survey, himself, will fully coincide with me in that opinion.

By co-operation your work will be better accomplished, it will come before the public as under the auspices of the State authorities, and your State Geologist will be able to work with more freedom, and will be relieved of many burdens and anxieties assumed by him and consequent upon his relations with the State, and he will no longer be working as an isolated individual.

Through this co-operation better influences will be brought to our

aid within the State. The fact that the United States Geological Survey is interested in our work and co-operating with us will greatly aid in giving us the support which we need. Arguments might be multiplied and extended. It is not only for the immediate occasion that I advise this coöperation, but for all the future, in all the scientific investigations and publications which may be proposed or undertaken by the State.*

Leaving in your hands the decision of the questions presented above, I am, very respectfully,

Your obedient servant,

JAMES HALL,

State Geologist.

ALBANY, N. Y., *January 1, 1885.*

* Since the presentation of this report to the Board of Regents, the following action has been taken by the Legislature and by the Governor in regard to the publication of the Geological map. This map was communicated to the Legislature with the report of the State Geologist and was referred by the Assembly to the Committee on Public Printing. The House and Senate Printing Committees met in joint session and recommended the printing of one thousand copies. A resolution embracing this recommendation was passed by the two Houses, as a joint resolution. The committee also recommended, that the sum of \$2,500 be appropriated for the purposes of this resolution. An item in the supply bill providing for the payment of this amount, on the certificate of the Secretary of the Board of Regents, passed the two Houses of the Legislature. The Governor has thought proper to veto this item and therefore there are no means for the publication of the Geological map.

REPORT OF THE STATE ENTOMOLOGIST.

OFFICE OF THE STATE ENTOMOLOGIST, {
ALBANY, *January 6, 1885.* }

To the Honorable Board of Regents of the University of the State of New York:

GENTLEMEN — I beg leave to present the following report of some of the operations of my department, for the year 1884 :

The work of the office has been assiduously carried on during the year. Fortunately for the agricultural interests of the State, no insect attack of unusual extent has been made upon any of the principal crops, nor have we to record the introduction from abroad of any very injurious insect pest.

So varied, however, is the economy of insect life, and so different are the conditions under which it presents itself to our notice, that even without any special and unusual subject of investigation, the past year has brought with it many forms and phases of insect attack of so interesting and important a character as to occupy all the time that could be devoted to their study.

To the larger number of these, my attention was called by requests made to me for the name of the insect, an account of its habits, changes, continuance, etc., and the best means for preventing its injuries.

To all such inquiries I have returned full reply whenever possible to do so, even when it has been necessary, in the case of new forms of attack, to make special study before satisfactory information could be given, and feasible and effectual remedies suggested.

By this means, I have endeavored to show the value of this department to the agriculturist, orchardist, gardener, and to community in general, in the confidence that with its work more widely known and appreciated, calls for its assistance would be more frequently made upon it, and the sphere of its usefulness thereby greatly extended.

It has been very gratifying to me that in several instances I have been able to indicate such measures of relief from insect depredations, that the success attending their use has been so signal as to demonstrate the value of the studies and investigations in economic entomology.

SPECIAL STUDIES.

Of the following insects, special study has been made by me during the past year, in consideration of (with one exception) injuries caused by them within our State :

Wheat joint-worm, *Isosoma tritici* Riley.

Squash-vine borer, *Melittia cucurbitæ* (Harris).

Angoumois moth, *Sitotroga cerealella* (Oliv.)

Great Leopard moth, *Ecpantheria scribonia* (Stoll).

Apple maggot, *Trypeta pomonella* Walsh.

White grub, *Lachnosterna fusca* (Frohl.)
 Strawberry crown borer, *Otiorhynchus ligneus* Oliv
 ———, *Tribolium ferrugineum* (Fabr.)
 Punctured clover-leaf weevil, *Phytonomus punctatus* (Fabr.)
 Peach-root aphid, *Myzus* sp.?
 Box psylla, *Psylla buxi* (Linn.)

The results of such study will appear in a report which I hope soon to present to your honorable Board.

PUBLICATIONS.

As many of the cases of insect attack submitted to me for information and advice were not confined to a single locality, but were of general importance, I have usually in such instances availed myself in my replies of the columns of agricultural and other journals, through which the desired publicity might be given. The larger number of my communications of this character have been contributed to the *Country Gentleman*, published in this city — a leading agricultural journal of extensive circulation, reaching in its distribution nearly every State of the Union, through one-seventh of the entire number of post-offices in the United States.

As a record of work in this direction, and as a means of reference for those who may desire to consult any of the articles, a list of my publications during the year is herewith given :

A NEW SEXUAL CHARACTER IN THE PUPÆ OF SOME LEPIDOPTERA.

[Psyche, IV, No. 115-116, November-December, 1883, pp. 103-106] — Issued February 11, 1884. An abstract in Proceedings of the American Association for the Advancement of Science, held at Montreal, Canada, August, 1882, xxxi, 1883, pt. II, p. 470-471.]

Remarks upon the interest attaching to the sexual characteristics of insects ; mentions a number of such sexual features ; they are fewer and less marked in the earlier stages. The particular feature noticed in this paper, is one pertaining to the *Cossinæ* and to the *Ægeridæ*, viz.: in the male, the *tenth segment* of the pupa (not counting the head as one) is furnished with two rows of teeth, while the female uniformly has but one (as have the two following segments in each sex).

CRESSON'S UROCERAS — *Urocera Cressoni* Norton.

[Country Gentleman for January 3, 1884, XLIX, p. 9, c. 1 — 11 centimetres.]

In reply to an inquiry from Perth Amboy, N. J., the species is named, and its affinities given, and its habits in the larval and perfect stages. It occurs in the Middle States, and interesting varieties have been recorded from Albany, N. Y.

FULLER'S ROSE BEETLE — *Aramigus Fulleri* Horn.

[Country Gentleman for January 17, 1884, XLIX, p. 49, c. 2 — 32 cm.]

The species identified from Stamford, Conn. Its first notice as a pest in conservatories, in 1874, and its subsequent distribution ; its life-history, as given by Prof. Riley in the *Rept. Commis. Agricul.* for 1878 ; remedies for it, and reference to publications upon it.

THE LUNATED LONG-STING — *Thalessa lunator* (Fabr.)

[Country Gentleman for April 17, 1884, XLIX, p. 331, c. 3-4 — 52 cm.]

Captured in Augusta, Ga., while ovipositing, April 1st, identified, a figure given, and method of oviposition stated ; the insect upon the larva of which it is parasitic, *Tremex columba*, is also shown. A note from Prof. Riley is added, which gives the statement that the parasite feeds on the *Tremex* larva while attached to its exterior.

AN INSECT ATTACK ON AN IULUS.

[The Canadian Entomologist for April, 1884, xvi, p. 80 — 7 cm.]

Communicating an observation of a swarm of minute insects surrounding, darting upon, and seriously annoying an Iulus. Could they have been Ichneumons?

INSECT INJURY TO GRAPE-VINES.

[Country Gentleman for May 8, 1884, XLIX, p. 397, c. 1 — 25 cm.]

Some pieces of grape-vines bearing pinhole-like punctures, from Hopkinsville, Ky., are recognized as having been punctured for oviposition, by *Æcanthus latipennis* — one of the flower crickets, closely allied to *Æ. niveus*. The punctures and method of oviposition are described and reference made to figures in Fifth Missouri Report on Insects, page 119. The punctures are not injurious to the vine, but the crickets may possibly cut the stems of the grapes.

SQUASH BORERS.

[Country Gentleman for May 8, 1884, XLIX, p. 397, c. 2 — 6 cm.]

Injuries to squash vines noticed in the *Country Gentleman* of April 24th, and there ascribed by the editor to the striped cucumber beetle, *Diabrotica vittata*, are recognized as caused by the squash-vine borer, *Melittia cucurbitæ*.

THE PUNCTURED CLOVER-LEAF WEEVIL.

[Country Gentleman for May 29, 1884, XLIX, p. 457, c. 2-3 — 56 cm.]

Larvæ submitted from East Avon, Livingston county, N. Y., prove to be the mature forms of *Phytonomus punctatus* (Fabr.). Its present known distribution is given, the transformations, description of its cocoon, and reference to writings upon it. Prompt resort to effective remedies is urged, of which are thorough plowing, and rolling the clover after twilight, at which time the larvæ are feeding.

The same, in the *Ontario County Times*, Extra, of May 29, 1884.

A NEW CLOVER PEST — Its ravages in the southern portion of Canada.

[Ontario Co. Times, Extra, May 29, 1884 — 30 cm.; Ontario Co. Times of June 4, 1884, p. 3, c. 4-5 — 85 cm.]

Examples of the larvæ sent by the editor are identified as *Phytonomus punctatus*. To resist the attack plowing is recommended, rolling not being as useful now after the insect has entered the ground for pupation. Reference is made to the notice of the insect in the *Country Gentleman* of May 29, and its republication recommended to the editor, which is accordingly done.

A CORN CUT-WORM.

[Bulletin No. LXXXVI, of the N. Y. Agricultural Experiment Station, Geneva, May 31, 1884 — 32 cm.]

In reply to an inquiry from Batavia, N. Y., of a cut-worm cutting off corn at the surface of the ground, the different habits of cut-worms are referred to, and recommendation is made of poisoning them by sprinkling London purple over the plants. Another method which has proved quite effective is to employ boys to dig them from the hills — mention of a crop saved by this means.

THE WHITE GRUB OF THE MAY BEETLE — *Lachnosterna fusca*. Read before the New York State Agricultural Society at the annual meeting January 16, 1884.

[Forty-third Annual Report of the N. Y. State Agricultural Society for the year 1883 [June 5], 1884, pp. 20-87, 5 figures.]

Gives an epitome of what is known of this serious pest, and indicates what is needed to complete its life-history. It is treated of under the following heads: The beetle; the white grub; the egg; injurious character of the insect, injuries from the grub; injuries of the beetle; life-history, distribution; its enemies; preventives and remedies; study of the insect desired.

THE SQUASH-VINE BORER — I. *Melittia cucurbitæ*.

[Country Gentleman for June 5, 1884, XLIX, p. 477, c. 2-4 — 50 cm.]

Gives, in reply to inquiries made from Coxsackie, N. Y., descriptions of the caterpillar and moth of the above-named insect, and remarks upon the family of *Ægeridæ*, to which it belongs.

THE SQUASH-VINE BORER — II.

[Country Gentleman for June 12, 1884, XLIX, p. 497, c. 2-3 — 40 cm.]

The life-history, so far as known, and habits of the insect are given. Its injuries appear to be increasing with the increase of cultivation of the Hubbard squash. Its abundance at times is shown in the fact that 142 larvæ have been cut from a single vine.

THE SQUASH-VINE BORER — III.

[Country Gentleman for June 19, 1884, XLIX, p. 517, c. 1-3 — 74 cm.]

Treats of remedies and preventives, viz.: Autumn plowing and harrowing, gaslime, kerosene oil, strong-smelling substances as counter-odorants (especially bisulphide of carbon), covering the plants with netting, cutting out the larvæ, rooting the plants at the joints, guano and London purple and saltpetre. Additional observations are asked for upon points mentioned.

THE BACON BEETLE — *Dermestes lardarius* Linn.

[Country Gentleman for June 26, 1884, XLIX, p. 537, c. 2 — 25 cm.]

The beetle and larva are described, their food stated, allied species referred to, and inclosing bacon, etc., in whitewashed paper or cloth bags recommended as the best protective from attack. No method is known of preventing attack upon salted meats if exposed to the insect

THE MAPLE TREE SCALE-INSECT.

[Country Gentleman for July 3, 1884, XLIX, p. 556-7, c. 4-1 — 20 cm.]

Identifying *Lecanium innumerabilis* Rathvon, from Phoenix, N. Y., June 6; describing the scales as at present with the eggs beneath them, and later, when the eggs are extruded, enveloped in waxy fibres. The active larval stage the best time for killing the insects, with whale-oil soap solution or kerosene and milk emulsion.

THE SPRING CANKER-WORM — *Anisopteryx vernata* (Peck).

[Country Gentleman for July 10, 1884, XLIX, p. 577, c. 2-3 — 30 cm.]

In answer to inquiries and examples sent from two localities in Westchester county, N. Y.—identification of the species, remarks upon the importance of arresting its spread in the State, and recommendation of destroying the pupæ in the ground beneath the trees; arresting the ascent of the female moth by tarring the trunks or by tin bands; jarring the larvæ from the limbs into a straw fire beneath, and spraying the tree with Paris green or London purple in water.

THE BUFFALO GNAT.

[Country Gentleman for July 10, 1884, XLIX, p. 577, c. 3-4 — 52 cm.]

The gnat is an undescribed species of *Simulidæ*, few of which family have been studied—even the “black fly” of the Adirondack region bears only a manuscript name. The habits and transformations of the *Simulidæ*, in general, are given, with references to particular species observed. Various notices of the buffalo gnat are quoted.

THE CARPET BUG.

[Amsterdam (N. Y.) Daily Democrat of July 21, 1884, p. 3, c. 3-4 — 68 cm.]

In a letter to the editor in reply to inquiries, are given—What the insect is: habits of the insect, not possible to exterminate it; means of protection: means of destruction; hunting the “bug” urged.

THE ELM TREE BEETLE.

[New York Weekly Tribune for July 23, 1884, p. 10, c. 4 — 13 cm.]

Referring to a recent statement in the *Tribune* that the elm trees in Flushing, L. I., were being destroyed by this insect, recommendation is made of the method given by Mr. Glover in the agricultural report for 1870, of placing frames around

the base of the trees, so constructed as to prevent the egress of the larvæ that descend the trunks for pupation and their entrance into the ground, by a layer of cement. The northward progress of the insect in New York is stated.

THE CARPET BEETLE — *Anthrenus scrophulariæ* Linn.

[Country Gentleman for August 14, 1884, XLIX, p. 676-7, c. 3-1 — 48 cm.]

Gives in reply to inquiries from Manchester, Vt., its habits, habitat, injuries, materials eaten, and transformations. Among the best preventives and remedies are mentioned carbolic acid, creosote, gas-tar paper, benzine and kerosene, cyanide of potassium, fumigation of closets with sulphur, and frequent searches for the larvæ.

INSECTS MINING BEET LEAVES.

[Country Gentleman for August 14, 1884, p. 677, c. 2 — 13 cm.]

Leaves sent from Erie, Pa. are infested with larvæ of a species of the *Anthomyiidae*, probably one of the three species mentioned in my *First Report on the Insects of New York*, pp. 203-211. Some of the characteristics of these flies are given, with notice of their mining operations in this country.

PEACH ROOT APHIS.

[Gardener's Monthly and Horticulturist, Phila., September, 1884, xxvi, pp. 271-2 — 29 cm.]

A root aphis which is destroying all the seedling peach trees of Mr. Lorin Blodget, at Philadelphia, is believed to be *Myzus persicæ* Salzer. For destroying it the following are suggested: Hot water, leached ashes and sulphur, bisulphide of carbon and soluble phenyle. As superior to the above, the sulpho-carbonates are recommended, and M. Dumas, of the French Academy, quoted upon their use.

A NEW ROSE PEST — *Homoptera lunata* (Drury).

[Country Gentleman for September 4, 1884, XLIX, p. 737, c. 1-2 — 25 cm.]

Caterpillars feeding at night upon rose buds in a rose-house in Madison, N. J., prove to be *Homoptera lunata*. This food-plant had not been previously recorded. The life-history of the species, as detailed by Prof. French, is given, together with Guenée's description of the caterpillar; also mention of the sexual difference in the moths, and the distribution of the species. Injury from the larvæ in rose-houses best prevented by hand-picking them.

JUMPING SEEDS.

[Country Gentleman for September 11, 1884, XLIX, p. 757, c. 1-2 — 40 cm.]

The seed-vessels described — said to be a species of *Euphorbia*. The contained insect (a lepidopter) causing the motion, was described and named as *Carpocapsa saltitans*, by Prof. Westwood, in 1858, later by M. Lucas as *C. Deshaiziana*. The interesting generic relation of the insect is referred to, its leaps described, their cause explained, and period of emergence of the moth stated. Three other kinds of jumping seeds are known. Reference to further information.

THE WHITE GRUB — *Lachnosterna fusca* (Frohl.).

[Country Gentleman for September 11, 1884, XLIX, p. 757 c. 2-3 — 22 cm.]

In reply to inquiries from West Stockbridge, Mass., of remedies, etc, reference is made to a paper upon the insect giving about all that is known of it, published in the *Forty-third Annual Report of the New York State Agricultural Society*, for 1883. The starvation remedy, as there given and believed to be effectual, is quoted.

AN INSECT ATTACK NEW TO THE STATE — *Isosoma tritici*, on wheat, in Geneva.

[Bulletin 100, New York Agricultural Experiment Station, Geneva, N. Y., Oct. 4, 1884 — 86 cm.]

First noticed in Illinois in 1880; its difference from *Isosoma hordei*; location in the upper internodes of the straw; the larvæ more abundant in the straw exam-

ined than elsewhere seen ; the wheat greatly shriveled ; life-history of the insect ; its description ; two parasites infest it ; remedies found in burning the stubble and straw ; preventive in rotation of crops.

A STINGING BUG — *Melanolestes picipes* H.-S.

[Country Gentleman for October 23, 1884, XLIX, p. 877, c. 2-3 — 40 cm.]

An insect reported as inflicting a painful sting upon a lady in Natchez, Miss., is *Melanolestes picipes*, or the "Black Corsair." It is distributed over the United States, and has been previously noticed for the serious wounds it inflicts. Other Hemiptera of the *Reduviidæ* having similar stinging habits, are the *Conorhinus sanguisuga* Leconte, *Melanolestes abdominalis* (H.-S.), *Reduvius personatus* (Linn.), and *Prionotus cristatus* (Linn.). The above are briefly noticed in their habits and painful wounds.

AN ATTACK UPON THE APPLE-WORM — A Friend, not a Foe.

[Country Gentleman for October 30, 1884, XLIX, p. 897, c. 2-4 — 52 cm.]

A larva sent from Crozet, Va., as injurious to apples, from eating large holes into their sides and causing rot, proves to be that of *Chauliognathus marginatus* (Fabr.). It is not injurious, but enters apples through holes already made, to feed upon the apple-worm — the larva of *Carpocapsa pomonella*. The larva and beetle are described, the latter by comparison with *Ch. Pennsylvanicus*. The holes in quinces, thought to have been made by the same larva, are probably those of the quince curculio, *Conotrachelus cratægi*, in leaving the fruit.

CLOVER INSECTS.

[Transactions of the N. Y. State Agricultural Society, XXXIII, 1877-1882, [October], 1884, pp. 206-207.]

In the republication of the paper on "The Insects of the Clover Plant," from the annual report of the society for the year 1880, a list of the names with reference to authorities of twenty-four species is given, as an addition to the forty-six previously recorded, making the number now known, seventy. Mention is made of the list of apple insects (additions in MS) being extended to one hundred and eighty.

THE WHITE GRUB.

[The New England Homestead for November 8, 1884, XVIII, p. 393, c. 1-3 — 80 cm.]

Treats of the insect under the following heads : The grub, the beetle, its distribution, its food-plants, injuries by the beetle, life-history, its enemies, preventives and remedies. Under the latter head, salt is recommended as an experiment, while starvation is pronounced infallible.

REPORT of the State Entomologist to the Regents of the University of the State of New York, for the Year 1883.

[Thirty-seventh Annual Report on the New York State Museum of Natural History, by the Regents of the University of the State of New York, (November), 1884, pp. 45-60.]

Reports upon the collections made during the year and other work of the entomologist. Among insects of special interest collected are some *Trypetidæ* — *Grapta Faunus* and *G. j-album*, *Fenisea Tarquinius*, *Agrilus torpidus*; remarks upon *Agrotis clandestina* and *Simulium molestum*; notice of the operations of *Orgyia leucostigma* in girdling elm twigs and causing them to drop; the English sparrow promoting insect injury; an extended notice of the appearance of the chinch-bug, *Blissus leucopterus*, in northern New York, with recommendations made, and distributed in a circular for the arrest of its ravages.

THE APPLE-LEAF BUCCULATRIX.

[The Husbandman (Elmira, N. Y.) for December 3, 1884, XI, No. 537, p. 1, c. 5 — 31 cm.]

Apple twigs received from Malcolm, Seneca county, N. Y., are covered with the cocoons of *Bucculatrix pomifoliella*. The cocoon is described and life-history of the species given. The remedies mentioned are spraying, or scouring with a stiff brush the infested branches with a kerosene oil and soap emulsion, of which the formula is given, for killing the insect within the cocoon; Paris green in water for poisoning the caterpillars, and jarring the caterpillars from the trees and burning them in the months of July and September.

COLLECTIONS.

The collections made during the year have not been large. The appropriation by the Legislature for traveling and other expenses of the office commenced only on October 1st; other duties of the office, of greater importance at the present, occupied most of my time. No special excursions for collecting purposes have therefore been made. Quite an amount of material has, however, been obtained in the course of my studies and during a two weeks' vacation among the Catskills, in Palenville and the Kaaterskill Clove. The following is the enumeration in the several orders. Number of specimens mounted :

Hymenoptera	53
Lepidoptera	48
Diptera ..	49
Coleoptera...	326
Hemiptera.....	157
Orthoptera	11
Neuroptera.....	8
Biological	111

Of unmounted specimens there are :

Hymenoptera.....	220
Coleoptera	777
Biological .	about 600

Making a total of specimens..... 2,360

CONTRIBUTIONS.

The following contributions have been made to the department :

Monohammus confusor Kirby : five examples, collected at Sodus Bay, N. Y. By Mrs. M. A. B. KELLY, Albany, N. Y.

The same, one example. By A. C. NELLIS & Co., Canajoharie, N. Y.

The same. By JOHN CHESTER, Albany, N. Y.

Hydrophilus triangularis (Say). By DUDLEY W. DEWITT, Albany, N. Y.

Coptocycla aurichalcea (Fabr.), taken upon *Calystegia sepium*. By Hon. G. W. CLINTON, Albany, N. Y.

Hibernated elm-tree leaf-beetles, *Galerucella xanthomelæna* Schr., April 28th; eggs of the same, on elm leaves, June 2d; larvæ and pupæ of the same, July 9th. By JAMES ANGUS, West Farms, N. Y.

Phytonomus punctatus (Fabr.), larvæ, about fifty specimens, from clover. By A. B. COCKINGHAM, East Avon, Livingston Co., N. Y.

The same, from a clover field. By CHARLES F. MILLIKEN, Canandaigua, N. Y.

The same in the beetle stage, feeding upon beans, July 2d. By J. F. ROSE, South Byron, Genesee Co., N. Y.

Otiorhynchus ligneus (Oliv.), from a dwelling-house at Lycoming infested with them. By Dr. C. M. COE, Lycoming, Oswego Co., N. Y.

Otiorhynchus ligneus, associated with *Anthrenus scrophulariæ* in a dwelling. By Prof. HENRY M. SEELY, Middlebury College, Middlebury, Vt.

Anthrenus scrophulariæ Linn., from Schoharie, N. Y. By Mrs. E. W. STREET, Albany, N. Y.

Tribolium ferrugineum (Fabr.), hundreds of specimens — infesting coarse flour "middlings" received from Chicago, Ill. By Messrs. DURANT & Co., Albany, N. Y.

Arimegus Fulleri Horn, from a conservatory. By J. L. SIMMONS, Stamford, Conn.

Calandra oryzae (Linn.), the rice weevil, infesting "rural branching sorghum seed;" many examples. By Dr. E. L. STURTEVANT, N. Y. State Agricultural Experiment Station, Geneva, N. Y.

Megilla maculata (De Geer), taken from corn upon which it was feeding. By Mr. STURGES, Fairfield, Conn.

Adalia bipunctata (Linn.), taken from a quince tree. By S. A. WALKER, Erie, Pa.

Galerucella xanthomelæna Schr., larva, pupa and imago; *Enchenopa binotata* (Say), the two-spotted tree hopper, fourteen examples. By Mrs. E. W. K. LASELL, Orange, N. J.

Chauliognathus marginatus (Fabr.), in the larval stage, taken from apples. By H. C. S., Crozet, Va.

Larva, pupa and imago of *Otiorhynchus ligneus*; larvæ of Anthomyiæ taken from the stomach of a robin. By CLARENCE M. WEED, Lansing, Mich.

Bruchus obsoletus (Say), from garden beans. By ISAAC COLES, Glen Cove, L. I.

Macrodactylus subspinosus (Fabr.), the rose beetle, with valuable notes upon its habits, and origin in sandy soil. By Mrs. L. G. CHRISMAN, Warren Farm, Chrisman, Rockingham Co., Va.

Pomphopœa ænea (Say), taken from wheat, butternut leaves and locust blossoms. By A. CASLER, Frankfort, Herkimer Co., N. Y.

Crioceris asparagi (Linn.), the asparagus beetle; many examples, in the egg, larval and perfect stages, collected at Geneva. By E. S. GOFF, Horticulturist N. Y. State Agricul. Experiment Station, Geneva, N. Y.

Lyctus opaculus Leconte, burrowing in grape stalks. By HOMER F. BASSETT, Waterbury, Conn.

Brachytarsus variegatus Say, taken from a bin of newly threshed wheat. By C. A. GILLETT, Shortsville, Ontario Co., N. Y.

Pityophthorus puberulus Leconte, obtained from pine twigs, into which the larvæ had burrowed; fifty or more examples. By CHARLES H. PECK, N. Y. State Museum of Natural History, Albany, N. Y.

Larva of *Nematus Erichsonii* Hartig, the Larch saw-fly, from tamarack. By Rev. THOMAS W. FYLES, South Quebec, Canada.

Wheat straw infested with *Isosoma tritici* Riley: from which was obtained December 23d and subsequently, the parasitic *Eupelmus Allynii* (French). By ROBERT J. SWAN, Rose Hill Farm, Geneva, N. Y.

Raspberry stalks containing cells of *Ceratina ampla* Say. By WM. H. EDWARDS, Coalburgh, W. Va.

A cluster of ichneumon cocoons on an apple twig, which disclosed *Apanteles congregatus* (Say). By T. J. HILL, Brooklyn, N. Y.

Larvæ of *Pieris rapæ* (Linn.), bearing the cocoons of one of its parasites, *Microgaster pieridis* Packard. By E. C. HILLS, East Hartford, Conn.

Larva of *Papilio Turnus* Linn., taken from a lemon tree, July 28th. By JAMES W. STEELE, Elizabethtown, N. Y.

Vanessa Antiopa (Linn.), larvæ of *Thyreus Abbotii* (Swains.), *Darapsa Myron* (Cramer), *Sphinx* sp.? and *Alypia octomaculata* (Fabr.), from grape-vines July 5th. By Dr. R. H. SABIN, West Troy, N. Y.

Eggs and young larvæ of *Darapsa versicolor* (Harris), occurring upon *Azalea* sp., July 21. Larvæ of *Tolype velleda* (Stoll), May 26th (failed to mature). By H. ROY GILBERT, Rochester, N. Y.

Larvæ of *Thyreus Abbotii* (Swains.), ten examples, from grape-vines; *Spectrum femoratum* Say, in act of moulting, June 16th; three cocoons of *Callosamia Promethea*, perforated by birds for feeding on the pupa. By S. C. BRADT, Albany, N. Y.

Larva of *Citheronia regalis* (Fabr.), taken from English walnut (*Juglans nigra*), August 22d. By WM. B. SPRAGUE, JR., Flushing, L. I.

Eggs of *Ecpantheria scribonia* (Stoll), from Florida, October 17th, from which the moths were obtained January 15th, *et seq.* By Mrs. JULIA P. BALLARD, Easton, Pa.

Larva of *Agrotis fennica* (Tausch.), quite injurious in meadows in northern Michigan. By Prof. A. J. COOK, Agricultural College, Lansing, Mich.

Larvæ of *Mamestra picta* (Harris), taken from peas and cabbage. By E. S. GOFF, Geneva, N. Y.

Larvæ of *Penthina nimbata* (Clemens), from rose bushes. By D. J. GARTH, Scarsdale, Westchester Co., N. Y.

Cocoons of *Bucculatrix pomifoliella* (Clemens), upon apple twigs. By J. S. ROYS, Lyons, Wayne Co., N. Y.

Examples of the same. By MALCOM LITTLE, Malcom, Seneca Co., N. Y.

Sitotroga cerealella (Oliv.), the Angoumois moth, in ears of dried corn, October 27th. By E. H. LADD, State Agricultural Experiment Station, Geneva, N. Y.

Pæcilocapsus lineatus (Fabr.), with gooseberry twigs injured by it. By E. S. GOFF, Geneva, N. Y.

The same, taken from garden sage. By J. G. FARGO, Batavia, N. Y.

The same taken on parsnips and currants. By J. F. ROSE, South Byron, N. Y.

Lygus lineolaris Beauv., feeding upon and deforming young pears. By Messrs. ELLWANGER and BARRY, Mount Hope Nurseries, Rochester, N. Y.

Podisus cynicus (Say), preying upon the currant-worm, *Nematus ventricosus* Klug. By SAMUEL G. LOVE, Jamestown, N. Y.

Mytilaspis pomicorticis Riley, on Kilmarnack willow, which it had nearly destroyed. By W. F. OSBORNE, Ansonia, Conn.

Pulvinaria innumerabilis (Rathvon), occurring upon grape vines. By Dr. N. C. SCUDDER, Rome, N. Y.

Belostoma Americana Leidy. By D. G. BULKLEY, Albany, N. Y.

Drogmites discolor Loew, taken on a squash-vine and wrongly supposed by the sender to be injurious to it. By T. E. HAYWARD, Pittsford, N. Y.

Grape vine punctured for oviposition by a flower cricket, *Æcanthus latipennis* Riley. By D. J. HOOVER, Hopkinsville, Ky.

Larval Ant Lions, of species indeterminable, with observations upon their habits. By Geo. W. DUVALL, Annapolis, Md.

Corydalis cornutus Linn. By FRANK RICHARDSON, Rutland, Vt.

SEQUEL OF INSECT ATTACKS OF LAST YEAR.

In my preceding report a brief notice was given of a peculiar attack of the white-marked tussock-moth, *Orgyia leucostigma* (Sm.-Abb.), in girdling the young tips of the twigs of elms in Albany and the vicinity, and causing them to fall to the ground. This form of attack had never been recorded of the insect before, but it was thought possible that it might be continued to some extent in following years.

Nothing of the kind, however, was observed during the past year when the insect again appeared, although diligent watch was kept for its recurrence. Only a comparatively small number of the larvæ made their appearance in Albany, at their accustomed time — not enough to injure, in the slightest appreciable degree, the foliage of any of the shade trees. For several years previous the city had not been so free from its injurious presence. This may have been the result of the severe frosts that occurred as the larvæ were about emerging from the eggs, together with an unusual number of its parasitic enemies the preceding summer, when very few of the larvæ matured, and the cocoons bearing their deposit of eggs (showing completed transformations) were quite exceptional.

As a contribution to the life-history of the species, it may be noted, that on July 5, 1884, larvæ were seen spinning their cocoons upon the trunks of maples in Washington Park, Albany, together with newly-made cocoons, some containing unchanged larvæ and others the pupæ. On the 16th July, females had emerged and deposited eggs, while a larva was seen still feeding. On the 21st, a number of cocoons were collected in which the larvæ were found to have been destroyed by a parasitic *Tachina*.

At Philadelphia, Pa., on September 8, a second brood of the insect was observed, in female moths and egg-deposits, and larvæ constructing their cocoons.

In the notice of the chinch-bug, *Blissus leucopterus*, in my report for 1883, it is stated: "The re-appearance of the insect the coming season will be watched with much interest, as a test of the efficacy of the partial efforts put forth for its destruction."

The insect has not re-appeared, in northern New York, to the extent of committing serious injury. In localities where it had abounded the preceding year, and the land had not been plowed, its presence, in hibernated individuals, was observed soon after the snow had gone. No further damage from it was reported to me, nor could I learn of any through careful inquiry, except in one instance where no attention had been paid to the recommendation of thorough autumn plowing. Here a piece of wheat of several acres in extent was attacked by it and considerably injured.

Apparently, the increase of this dreaded pest in northern New York, at the present time, has been effectually checked.

For the details of my studies and investigations during the year, I beg leave to refer to my regular report, much of which is in MS., which will be hereafter presented to your honorable Board.

Respectfully submitted,

J. A. LINTNER.

REPORT OF THE BOTANIST.

To the Honorable the Board of Regents of the University of the State of New York :

GENTLEMEN — I have the honor to communicate to you the following statement of the work of the Botanist during the past year :

The investigation of our State flora and the collection and preparation of specimens to properly represent it in the State Herbarium, a work which had been partly interrupted for two years, has been fully renewed and actively prosecuted during the collecting season. Specimens were collected in the counties of Essex, Warren, Fulton, Lewis, Saratoga, Albany and Rensselaer. Of the collected specimens, those representing one hundred and ninety-two species have been prepared, mounted and added to the Herbarium. One hundred and sixteen of these, of which a considerable number are species of fungi not before published, were not previously represented therein. The remainder are species now more completely and satisfactorily illustrated in their different forms and varieties or by more perfect specimens.

Specimens of about one hundred and forty species of plants, mostly fungi, have been contributed by various botanists and correspondents. Of these there are two species of this State new to the Herbarium and not among my collections of the past season. These added to the number already given make a total of one hundred and eighteen added species. A list of their names is marked A. Also a list of contributors and their respective contributions is given and marked B.

Notices of plants not before reported, together with a record of the localities where they were found, also descriptions of such as are deemed new species are in a part of the report marked C. These descriptions, in nearly all cases, have been drawn up with the fresh plant before me. The microscope has been taken with me on my collecting trips, and the microscopical details studied at the time of collecting, in order to insure greater accuracy.

A record of observations on species not new to our flora has been made and is marked D. It contains remarks upon any matters of interest in connection with the variation, distribution, locality or habitat of the species.

A descriptive manual of our Hymenomycetous or fleshy fungi, among which are the mushrooms and mushroom-like Agarics, is greatly needed. The number of those desirous of becoming acquainted with our native species of these plants is constantly increasing, but a proper and convenient manual for their study and identification is wanting. Accidents from the use of poisonous kinds for food, by those, who, ignorant of the true characters of the species, have mistaken them for the edible mushroom occur from time to time. These accidents might readily be avoided by a better and more common acquaintance with the characteristic features of our edible species and their less valuable associates. As a step in this direction monographs of the different genera represented in our

flora were commenced in the thirty-third report and continued in subsequent ones. For the present report a monograph has been prepared of our species of *Lactarius*, or milky-juice fungi, and also one of the genus (subgenus of Fries) *Pluteus*.

The genus *Lactarius* is a large one, at present represented in our State by forty species. Some of these rank as edible, others as poisonous. While the genus as such is easily recognized and accurately separated from all other genera, some of the species that compose it approach each other so closely and vary so considerably that without clear and explicit descriptions they are liable to be confused and their discrimination unsatisfactory. In this monograph it has been the design to make the specific descriptions so complete and at the same time to give such prominence to the distinguishing characters, that no difficulty need be experienced in the identification of our species. The spore characters are also given, a part of the description that is sometimes of great importance, and yet one that has generally been omitted by authors. A synoptical table has been prepared, by means of which, with good fresh specimens, it is believed, the name of any species described in the monograph may be easily and quickly ascertained. These monographs constitute a part of the report marked E. The revision of our specimens of Sphæriaceous fungi, which was commenced last year, has been continued and completed. This revision, as was explained in my preceding report, was necessary in order to bring the arrangement and nomenclature of our species into harmony with the recent Saccardoan system, which, from present indications, is destined to supersede the old Friesian system.

It is desirable, not only that our Agarics and other fleshy Hymenomycetous fungi, which so generally shrivel and change color in drying, should be illustrated by sketches of the fresh plant colored according to nature, but also that magnified drawings of the microscopic characters of the smaller and minute fungi should be made and accompany the specimens in the Herbarium. A considerable number of such sketches were made the past season, at the time the specimens were collected. From these I have prepared three plates of figures designed to illustrate, as far as possible, the characters of the new species described in the following pages

Thanks are hereby rendered to those botanists who have kindly aided me in the prosecution of my labors, both by the contribution of specimens and of information.

Most respectfully submitted,
CHAS. H. PECK.

ALBANY, *December* 31, 1884.

A.

PLANTS ADDED TO THE HERBARIUM.

New to the Herbarium.

- Ipomæa purpurea*, *L.*
Populus dilatata, *L.*
Listera convallarioides, *Hook.*
Molinia cærulea, *Mœnch.*
Festuca rubra, *L.*
Agaricus clypeolarius, *Bull.*
A. terræolens, *Pk.*
A. vexans, *Pk.*
A. purpureofuscus, *Pk.*
A. immaculatus, *Pk.*
A. discopus, *Lev.*
A. hiemalis, *Osbeck.*
A. scyphoides, *Fr.*
A. jubatus, *Fr.*
A. unitinctus, *Pk.*
A. atrides, *Lasch.*
A. comosus v. *albus*, *Pk.*
A. villosus, *Fr.*
A. umboninotus, *Pk.*
A. maritimoides, *Pk.*
A. comatellus, *Pk.*
A. subexilis, *Pk.*
A. sordidulus, *Pk.*
A. parvifructus, *Pk.*
A. cærulipes, *Pk.*
A. madeodiscus, *Pk.*
Coprinus lagopus, *Fr.*
Cortinarius aureifolius, *Pk.*
C. multiformis, *Fr.*
C. decoloratus, *Fr.*
Hygrophorus purpurascens, *Fr.*
Lactarius varius, *Pk.*
L. hyginus, *Fr.*
L. paludinellus, *Pk.*
Russula basifurcata, *Pk.*
Lentinus suavissimus, *Fr.*
Boletus sulphureus, *Fr.*
B. versipellis, *Fr.*
Polyporus abortivus, *Pk.*
P. epileucus, *Fr.*
P. crispellus, *Pk.*
P. lætificus, *Pk.*
P. fimbriatellus, *Pk.*
P. ornatus, *Pk.*
P. odorus, *Pk.*
P. subacidus, *Pk.*
P. griseoalbus, *Pk.*
Merulius fugax, *Fr.*
M. aurantiacus, *Pk.*
Geaster striatus, *DC.*
Coniothyrium valsoideum, *Pk.*
Phoma Phytolaccæ, *B. & C.*
P. elevatum, *Pk.*
P. Pruni, *Pk.*
P. albifructum, *Pk.*
Sphæropsis alnicola, *Cke.*
Sphæropsis ribicola, *C. & E.*
Diplodia pinea, *Kx.*
Sphærographium hystricinum, *Sacc.*
S. lantanoidis, *Pk.*
Appendicularia entomophila, *Pk.*
Gelatinosporium fulvum, *Pk.*
Phyllosticta Podophylli, *West.*
P. Labruscæ, *Thum.*
P. Epigææ, *Pk.*
P. lantanoidis, *Pk.*
Ascochyta Cassandræ, *Pk.*
A. colorata, *Pk.*
Marsonia Quercus, *Pk.*
Pestalozzia monochætoidea, *S. & E.*
Stagonospora Smilacis, *Sacc.*
Glæosporium Salicis, *Wint.*
G. Ribis, *Cast.*
Septoria alnicola, *Cke.*
S. Ribis, *Desm.*
S. Lysimachiæ, *West.*
S. Dentariæ, *Pk.*
S. Dalibardæ, *Pk.*
S. Diervillæ, *Pk.*
S. fumosa, *Pk.*
S. punicea, *Pk.*
S. Trillii, *Pk.*
Rhabdospora subgrisea, *Pk.*
Hadrotrichum lineare, *Pk.*
Ramularia multiplex, *Pk.*
R. Pruni, *Pk.*
R. Diervillæ, *Pk.*
R. Oxalidis, *Farl.*
Cylindrosporium veratrinum, *S. & W.*
Ovularia moniloides, *E. & M.*
Peronospora Arthuri, *Farl.*
P. Halstedii, *Farl.*
P. Potentillæ, *DeBy.*
Entyloma Saniculæ, *Pk.*
Cercospora Violæ, *Sacc.*
C. Majanthemi, *Fckl.*
C. Cephalanthi, *E. & K.*
C. Comari, *Pk.*
Cenangium balsameum, *Pk.*
Sphærotheca pannosa, *Lev.*
Asterina nuda, *Pk.*
Capnodium Citri, *B. & D.*
Valsa Friesii, *Fckl.*
V. cornina, *Pk.*
V. leucostomoides, *Pk.*
V. opulifoliæ, *Pk.*
Diatrypella Frostii, *Pk.*
Sphærella conigena, *Pk.*
Didymosphæria Typhæ, *Pk.*
Venturia Cassandræ, *Pk.*
Diaporthe Wibbei, *Nits.*
D. cylindrospora, *Pk.*

Leptosphæria eutypoides, *Pk.*
L. Corallorhizæ, *Pk.*
L. lycopodiicola, *Pk.*
 Metasphæria Myricæ, *Pk.*

Mazzantia sepium, *S. & P.*
 Sphærulina sambucina, *Pk.*
 Cryptospora Caryæ, *Pk.*

Not New to the Herbarium.

Ranunculus repens, *L.*
 Nuphar advena, *Ait.*
 Caulophyllum thalictroides, *Mx.*
 Podophyllum peltatum, *L.*
 Capsella Bursa-pastoris, *Mæneh.*
 Viola pubescens, *Ait.*
V. rostrata, *Pursh.*
V. can. v. sylvestris, *Regel.*
 Hypericum ellipticum, *Hook.*
 Acer dasycarpum, *Ehrh.*
 Geranium maculatum, *L.*
 Rhus typhina, *L.*
 Rubus hispidus, *L.*
 Rosa setigera, *Mx.*
 Fragaria Virginiana, *Ehrh.*
 Prunus serotina, *Ehrh.*
 Aralia hispida, *Mx.*
A. nudicaulis, *L.*
 Sambucus pubens, *Mx.*
 Cornus sericea, *L.*
C. stolonifera, *Mx.*
 Fedia umbilicata, *Mx.*
 Tussilago Farfara, *L.*
 Senecio aureus, *L.*
 Tanacetum vulgare, *L.*
 Vaccinium Pennsylvanicum, *Lam.*
 Chiogenes hispidula, *T. & G.*
 Amarantus blitoides, *Wats.*
 Quercus palustris, *Du Roi.*
 Alnus incana, *Willd.*
A. serrulata, *Ait.*
 Salix fragilis, *L.*
 Symplocarpus foetidus, *Salisb.*
 Corallorhiza multiflora, *Nutt.*
 Uvularia perfoliata, *L.*
U. grandiflora, *Sm.*
 Trillium grandiflorum, *Salisb.*
 Juncus marginatus, *Rostk.*
 Carex stipata, *Muhl.*

Carex grisea, *Wahl.*
C. laxiflora, *Lam.*
C. umbellata, *Schk.*
 Holcus lanatus, *L.*
 Agrostis vulgaris, *With.*
 Glyceria fluitans, *R. Br.*
G. elongata, *Trin.*
 Danthonia spicata, *Beauv.*
D. compressa, *Aust.*
 Panicum dichotomum, *L.*
 Bromus ciliatus, *L.*
 Aira cæspitosa, *L.*
 Millium effusum, *L.*
 Lycopodium complanatum, *L.*
 Agaricus muscarius, *L.*
A. naucinoides, *Pk.*
A. transmutans, *Pk.*
A. radicans, *Relh.*
A. maculatus, *A. & S.*
A. stipitarius, *Fr.*
A. clavicularis, *Fr.*
A. atrocæruleus, *Fr.*
A. strictior, *Pk.*
A. rhodopolius, *Fr.*
A. præcox, *Pers.*
A. subochraceus, *Pk.*
A. Hypnorum, *Batsch.*
A. Rodmani, *Pk.*
A. arvensis, *Schæff.*
 Coprinus atramentarius, *Bull.*
 Cortinarius porphyropus, *A. & S.*
 Marasmius anomalus, *Pk.*
M. androsaceus, *L.*
 Panus lævis, *B. & C.*
 Schizophyllum commune, *Fr.*
 Boletus Clintonianus, *Pk.*
 Polyporus lucidus, *Leys.*
P. undosus, *Pk.*

B.

CONTRIBUTORS AND THEIR CONTRIBUTIONS.

Mrs. S. M. Rust, Syracuse, N. Y.

Trillium grandiflorum. *Salisb.*

Mrs. L. L. Goodrich, Syracuse, N. Y.

Trillium grandiflorum. *Salisb.*

Prof. N. L. Britton, New York, N. Y.

Juncus trifidus, *L.*

Prof. O. C. Willis, White Plains, N. Y.

Ledum latifolium, *Ait.*

Andromeda polifolia, *L.*

Prof. W. G. Farlow, Cambridge, Mass.

Phoma Amelanchieris, *Farl.*

Ramularia Oxalidis, *Farl.*

Coleosporium Senecionis, *Wint.*

Peronospora Halstedii, *Farl.*

Cylindrosporium Gei, *Farl.*

Stictis Tsugæ, *Farl.*

Entyloma Lobeliæ, *Farl.*

Phyllachora Wittrockii, *Sacc.*

Rev. J. L. Zabriskie, Nyack, N. Y.

Rhus typhina, *L.*

Juncus marginatus, *Rostk.*

Quercus palustris, *Du Roi.*

Appendicularia entomophila, *Pk.*

Harold Wingate, Philadelphia, Pa.

Chondrioderma Michelii, *Lib.* v *sessile*, *Rostf.*

Geo. A. Rex, M. D., Philadelphia, Pa.

Trichia chrysosperma, *Bull.*

Physarella mirabilis, *Pk.*

Comatricha longa, *Pk.*

E. A. Burt, Albany, N. Y.

Hydrangea arborescens, *L.*

Carex Houghtonii, *Torr.*

Carex stram v. *festucacea*, *Gr.*

H. C. Gordinier, Troy, N. Y.

Aster ptarmicoides, *T. & G.*

Trillium grandiflorum, *Salisb.*

Fedia radiata, *Mx.*

Liparis Læselii, *Rich.*

Romeyn B. Hough, Lowville, N. Y.

Listera convallarioides, *Hook.*

Habenaria obtusata, *Rich.*

Liparis Læselii, *Rich.*

H. rotundifolia, *Rich.*

D. Byron Waite, Springwater, N. Y.

Castilleia coccinea, *Spreng.*

J. D. Greenslete, Broadalbin, N. Y.

Polygonatum biflorum, *Ell.*

Orontium aquaticum, *L.*

H. Andrews, Albany, N. Y.

Potamogeton Robbinsii, *Oakes.*

John D. Parsons, Albany, N. Y.

Lycoperdon giganteum, *Batsch.*

D. A. A. Nichols, Dunkirk, N. Y.

Uncinula spiralis, *B & C.*

T. F. Allen, M. D., New York, N. Y.

Nitella tenuissima, *Kutz.*

Tolypella fimbriata, *Allen.*

N. glomerulifera, *A. Br.*

T. intertexta, *Allen.*

N. opaca, *Ag.*

Chara sejuncta, *A. Br.*

N. minuta, *Allen.*

C. hydropitys, *A. Br.*

Tolypella comosa, *Allen.*

C. gymnopus, *A. Br.*

Prof. L. Lesquereux, Columbus, O.

* *Polyporus lucidus*, *Lays. ?*

* *Polyporus applanatus*, *Fr. ?*

* These are monstrous growths from abandoned coal mines, and therefore their specific identification is uncertain.

F. S. Earle, Cobden, Ill.

Septoria Bromi, <i>Sacc.</i>	Cercospora sordida, <i>Sacc.</i>
S. Pentstemonis, <i>E. & E.</i>	C. Persicæ, <i>Sacc.</i>
S. asciculosa, <i>E. & E.</i>	C. fuscovirens, <i>Sacc.</i>
S. podophyllina, <i>Pk.</i>	Entyloma Lobeliæ, <i>Farl.</i>
Glæosporium Potentillæ, <i>Ouds.</i>	E. Physalidis, <i>Wint.</i>
Phyllosticta Fraxini, <i>E. & W.</i>	Peronospora Arthuri, <i>Farl.</i>
P. pyrorum, <i>Cke.</i>	Microsphaera Platani, <i>Howe.</i>
Sporidesmium Fumago, <i>Cke.</i>	Phyllactinia suffulta, <i>Sacc.</i>
Æcidium Epilobii, <i>DC.</i>	Dimerosporium pulchrum, <i>Sacc.</i>

Hon. G. W. Clinton, Albany, N. Y.

Lentinus lepideus, <i>Fr.</i>	Polyporus squamosus, <i>Fr.</i>
Rhabdospora subgrisea, <i>Pk.</i>	P. applanatus, <i>Fr.</i>

J. B. Ellis, Newfield, N. J.

Polyporus oblectans, <i>Berk.</i>	Æcidium Æsculi, <i>E. & E.</i>
Irpex coriaceus, <i>B. & R.</i>	Æ. Collinsiae, <i>E. & E.</i>
Phlebia zonata, <i>B. & C.</i>	Æ. Ceanothi, <i>E. & E.</i>
Thelephora cæspitulans, <i>Schw.</i>	Ramularia Celastri, <i>E. & M.</i>
Stereum subpileatum, <i>B. & C.</i>	Peronospora Sicyicola, <i>Trel.</i>
Hymenochæte scabriseta, <i>Cke.</i>	P. Halstedii, <i>Farl.</i>
Peniophora flavido-alba, <i>Cke.</i>	Cenangium asterinosporum, <i>E. & E.</i>
Physarella mirabilis, <i>Pk.</i>	Pecillum Americanum, <i>Cke.</i>
Septoria Helianthi, <i>E. & K.</i>	Pilacre Petersii, <i>B. & Br.</i>
S. Speculariæ, <i>B. & C.</i>	Saccardia Martini, <i>E. & S.</i>
Pestalozzia Myricæ, <i>E. & M.</i>	Valsa sordida, <i>Nits.</i>
Pestalozziella subsessilis, <i>S. & E.</i>	V. cercophora, <i>Ell.</i>
Stilbospora fenestrata, <i>E. & E.</i>	Cucurbitaria Coremæ, <i>E. & E.</i>
Puccinia nigrescens, <i>Pk.</i>	Diatrypella deusta, <i>E. & M.</i>
P. splendens, <i>Vize.</i>	Didymosphæria cupula, <i>Ell.</i>
P. mirabilissima, <i>Pk.</i>	Trabutia quercina, <i>S. & R.</i>
P. asperior, <i>E. & E.</i>	Hypoxylon pruinatum, <i>Kl.</i>
P. Angelicæ, <i>E. & E.</i>	Diaporthe Conradii, <i>Ell.</i>
Triphragmium echinatum, <i>Lev.</i>	D. densissima, <i>Ell.</i>
Ustilago Vilfæ, <i>Wint.</i>	Venturia pezizoides, <i>S. & E.</i>
U. lineata, <i>Cke.</i>	Massaria sudans, <i>B. & C.</i>
Sorosporium Ellisii, <i>Wint.</i>	Leptosphaeria Xerophyli, <i>Ell.</i>
Peridermium orientale, <i>Cke.</i>	Linospora ferruginea, <i>E. & M.</i>
Æcidium porosum, <i>Pk.</i>	Microthyrium Juniperi, <i>Desm.</i>
Æ. Xanthoxyli, <i>Pk.</i>	

H. W. Harkness, M. D., San Francisco, Cal.

Hymenula aciculosa, <i>E. & H.</i>	Pestalozzia Moorei, <i>Hark.</i>
Octaviana rosea, <i>Hark.</i>	Puccinia anachoreta, <i>Hark.</i>
Gautiera monticola, <i>Hark.</i>	P. evadens, <i>Hark.</i>
Splanchnomyces Behrii, <i>Hark.</i>	P. variolans, <i>Hark.</i>
Septoria Hosackiæ, <i>Hark.</i>	P. melanconioides, <i>E. & H.</i>
S. Lupini, <i>Hark.</i>	P. digitata, <i>E. & H.</i>
Marsonia Neilliae, <i>Hark.</i>	Uromyces Nevadensis, <i>Hark.</i>
Glæosporium Pteridis, <i>Hark.</i>	U. Spragueæ, <i>Hark.</i>
Septoglæum Fraxini, <i>Hark.</i>	U. Eriogoni, <i>E. & H.</i>
S. maculans, <i>Hark.</i>	Morthiera Mespili, <i>Fckl.</i>
S. Nuttallii, <i>Hark.</i>	Melanconium magnum, <i>Berk.</i>
Harknessia longipes, <i>Hark.</i>	Rhytisma Andromedæ, <i>Fr.</i>
Pestalozzia corynoidea, <i>Hark.</i>	Lophodermium petiolicolum, <i>Fckl.</i>
P. anomala, <i>Hark.</i>	

Aug. F. Færste, Granville, Ohio.

Secotium Warnei, *Pk.*

C.

PLANTS NOT BEFORE REPORTED.

Ipomœa purpurea, Lam.

Along railroads and in waste places. West Albany. It is commonly cultivated as an ornamental plant and for the sake of shade. It continues to reproduce itself from year to year and spreads readily by seed.

Populus dilatata, Ait.

Sandy soil beyond West Albany. This tree, formerly introduced for ornament, produces only staminate flowers with us, and therefore does not propagate itself by seed. But it spreads freely by its roots, and having once obtained a foothold it does not often yield its ground unless compelled to do so by man. In the station whence our specimens were taken, there is a grove of thrifty young trees at a considerable distance from any dwelling, but they are probably the descendants of trees planted there many years ago, perhaps in front of some dwelling, all traces of which have long since disappeared.

Listera convallarioides, Hook.

Turin, Lewis county. *Romeyn B. Hough*. The three North American species of this genus have now all been found in our State, but they are all rare with us.

Festuca rubra, L.

Wet ground. Caroga, Fulton county. July. This was formerly considered a variety of *F. ovina*, sheep's fescue, but it is now generally classed as a distinct species. It is said to be indigenous about Lake Superior and northward, but has probably been introduced in the locality here mentioned. It was found in a clearing recently made, and could not have occupied the station many years. According to Professor F. L. Scribner, our specimens correspond to the variety *fallax*, which is common in Europe.

Molinia cærulea, Mæench.

Wet ground. Caroga. July. A grass introduced from Europe, and perhaps not yet fully established here. It was found growing with the preceding species, and with several of our native grasses, and was apparently well able to take care of itself. It forms dense tufts, and has an erect, somewhat rigid appearance.

Tolypella comosa, Allen.

Seneca lake. *T. F. Allen*.

Tolypella fimbriata, Allen.

Lake Ontario. *Allen*.

Tolypella intertexta, Allen.

Seneca lake. Allen.

Chara hydropitys, A. Br. v. genuina, A. Br.

Saranac river. Aug. Paul Allen.

Agaricus clypeolarius, Bull.

Copses and thin woods. Karner. Oct. This species was reported in the Twenty-third Museum report, but erroneously, as the specimens were afterward found to belong to *A. metulæsporus*, a species which closely resembles this in external characters. The specimens now under consideration are believed to belong to the true *A. clypeolarius*. The spores in them are much smaller than those of *A. metulæsporus*. In many cases the spores furnish important characters for distinguishing species of Agarics, and it is to be regretted that European mycologists have so generally neglected them in their descriptions.

Agaricus (Tricholoma) terræolens, n. sp.

Pileus thin, convex or nearly plane, slightly silky fibrillose, whitish with a brownish or grayish brown slightly prominent disk; lamellæ sub-distant, emarginate, white, stem equal, slightly silky, shining, stuffed or hollow, white; spores subglobose or broadly elliptical, .00025 to .0003 in. long, .0002 to .00025 broad; flesh white, taste and odor strong, unpleasant and earthy.

Plant 1 to 2 inches high, pileus 10 to 15 lines broad, stem about 2 lines thick.

Under ground hemlock, *Taxus Canadensis*. South Ballston, Saratoga county. Sept.

The species belongs to the section SERICELLA, and is closely related to *A. inamænus*, from which it is separated by its smaller size, less distant lamellæ, stuffed or hollow stem and different odor. Nor do I find the stem radicating or the disk tinged with yellow as in that species. Fries compares the odor of *A. inamænus* to that of *Geranium Robertianum*, but the odor of our plant is decidedly earthy, resembling that of vegetable mold or mossy rocks. Its taste is similar to its odor, and remains in the mouth and throat a long time.

Agaricus (Mycena) immaculatus, n. sp.

Pileus membranaceous, conical or sub-hemispherical, glabrous, slightly striate on the margin, pure white; lamellæ moderately broad, distant, adnate or uncinat-decurrent, white; stem slender, pellucid, white, glabrous, generally villose strigose at the base, and slightly thickened at the apex; spores oblong or cylindrical, .0003 to .00035 in. long, .00012 broad.

Plant 8 to 18 lines high, pileus 2 to 4 lines high and broad, stem scarcely .5 line thick.

Among moss and fallen leaves and on naked ground. Adirondack mountains. June.

The species belongs to the section ADONIDEÆ and is related in size

and color to *A. lacteus*, from which I have separated it on account of the decurrent toothed lamellæ and the longer spores. The striations of the pileus are also more distinctly visible in our plant when dried than they are when it is fresh.

***Agaricus (Mycena) vexans*, n. sp.**

Pileus membranous, conical sub-campanulate or convex, rather distantly striate, blackish-brown, sometimes slightly pruinose; lamellæ subdistant, ascending, adnate or uncinately adnate, slightly venose-connected, at first white, becoming grayish or smoky white, the edge paler; stem slender, rather tenacious, hollow, glabrous, colored like the pileus, somewhat floccose-villose at the base; spores sub-elliptical, .0003 to .00035 in. long, .0002 to .00025 broad; odor slight, alkaline.

Plant scattered or gregarious, not cæspitose, 2 to 2.5 inches high, pileus 4 to 6 lines high and broad, stem scarcely 1 line thick.

Ground in thin woods and open places. Adirondack mountains. June.

I have placed this species in the section FILIPEDES, although the slightly venose interspaces ally it to the RIGIDIPEDES, and the alkaline odor shows a relationship to the FRAGILIPEDES. It appears to be closely related to *A. uranius*, from which it may be distinguished by its larger size, different color and pileus not expallent. The pileus is not hygrophanous, and is striate even in the dried state. The lamellæ in the dried plants are brownish, with the edge nearly white.

***Agaricus (Mycena) purpureofuscus*, n. sp.**

Pileus membranous, campanulate or convex, obtuse, glabrous, striate, purplish-brown; lamellæ ascending, lanceolate, subdistant, adnate, white or whitish, purplish-brown on the edge; stem slender, even, hollow, glabrous, with white hairs at the base, colored like the pileus or a little paler; spores sub-globose or broadly elliptical, .00025 to .0003 in. long, .00025 broad.

Plant 1 to 3 inches high, pileus 4 to 8 lines broad, stem scarcely 1 line thick.

Mossy prostrate trunks of spruce trees in woods. Caroga. July.

This species belongs to the section CALODONTES, and is so closely related to *A. rubromarginatus*, that it is with some hesitation that I have separated it. Because of its darker color and the absence of the hygrophanous character of that species, it has seemed best to keep it distinct. Its even, not striated, stem forbids its reference to *A. atromarginatus*.

***Agaricus discopus*, Lev.**

Base of dead fern stems. Sandlake and Karner. Sept. and Oct.

The bulb at the base of the stem in our specimens is not as distinct as in the published figures of the species, but in other respects the specific characters are present.

***Agaricus hiemalis*, Osbeck.**

Prostrate trunk of spruce, *Abies nigra*. Adirondack mountains. June.

The specimens agree very well with the description of the species, but they appear to have occurred out of season.

***Agaricus scyphoides*, Fr.**

Bare soil and on decaying wood. South Ballston. Aug.

***Agaricus jubatus*, Fr.**

Damp ground in thin woods. West Albany. Sept.

The specimens were few in number and not fully developed. The pileus was conical, and clothed with a short, close, velvety pubescence, and the stem was solid. In these respects the specimens do not agree well with the description of the species, although bearing a striking resemblance to the figure of the species in *Mycological Illustrations*. We have, therefore, for the present, referred them to this species.

***Agaricus (Clitopilus) unitinctus*, n. sp.**

Pileus thin, flexible, convex or nearly plane, centrally depressed, glabrous, subshining, sometimes concentrically rivulose, grayish-brown; lamellæ narrow, moderately close, adnate or slightly decurrent, colored like the pileus; stem slender, straight or flexuous, subtenacious, equal, stuffed, slightly pruinose, grayish-brown, with a close, white mycelioid tomentum at the base, and white, root-like fibres of mycelium penetrating the soil; spores elliptical, .0003 in. long, .0002 broad; flesh whitish or grayish-white, odor almost none, taste mild.

Plant 1 to 2 inches high, pileus 6 to 12 lines broad, stem about 1 line thick.

Thin pine woods. Karner. Oct.

The species is apparently related to *A. cicatrisatus*.

***Agaricus atrides*, Lasch.**

Damp ground in woods. Caroga. July.

This species differs from *A. serrulatus* by its decurrent lamellæ, and from *A. Watsoni* by its darker color and blackish denticulations on the edge of the lamellæ.

***Agaricus villosus*, Fr.**

Prostrate trunks of poplars. West Albany. Aug.

Our specimens are pale-yellow or buff, becoming darker with age. In other respects they correspond to the characters of the species.

***Agaricus comosus*, Fr., var. *albus*, Pk.**

Trunks of horsechestnut. Albany. Oct.

Two specimens only were found. These were white, becoming tinged with yellow in drying. The typical form of the species is tawny. From *A. destruens*, with which our specimens agree more closely in color, the viscosity of the pileus will separate them. The spores are ferruginous, .0003 to .00035 in. long, .0002 to .00025 broad.

Agaricus (Inocybe) umboninotus, n. sp.

Pileus broadly campanulate or expanded, prominently umbonate, rimose-fibrillose, dark-brown; lamellæ at first whitish, then ferruginous-brown; stem equal or slightly thickened at the base, solid, fibrillose, paler than the pileus, pruinose at the apex; spores nodulose, .0003 to .00035 in. broad.

Plant 1.5 to 2 inches high, pileus 6 to 10 lines broad, stem 1 to 2 lines thick.

Mossy ground in woods. Caroga. July.

Its spores separate it from *A. rimosus*, and its prominent umbo from *A. asterosporus*.

Agaricus (Inocybe) maritimoides, n. sp.

Pileus subconical or convex, dry, obtuse, densely squamulose with small erect or squamose-fibrillose scales, fibrillose on the margin, dark-brown; lamellæ close, rounded behind and adnexed, ventricose, whitish, becoming brownish-ochraceous; stem equal, solid, fibrillose, paler than the pileus; spores irregular, angular, brownish-ochraceous, .0003 to .00035 in. long, .0002 to .00025 broad.

Plant about 1 inch high, pileus 6 to 12 lines broad, stem 2 lines thick.

Thin woods. Karner. Oct.

Apparently related to *A. maritimus*, but not hygrophanous. The spores are slightly angular, resembling in shape those of species of *Entoloma* and other *Hyporrhodii*, but are scarcely nodulose.

Agaricus (Inocybe) comatellus, n. sp.

Plate 2, figs. 5-8.

Pileus submembranous, convex or expanded, clothed with whitish or gray hairs, fimbriate on the margin; lamellæ subdistant, adnexed, pale-tawny; stem equal, solid, flexuous, pallid or reddish-brown, a little darker above, slightly mealy or pruinose-hairy, with a white mycelium at the base, spores subelliptical, even, .0003 to .0004 in. long, .0002 to .00025 broad.

Plant 6 to 12 lines high, pileus 2 to 4 lines broad, stem scarcely half a line thick.

Sticks and bark buried under fallen leaves. Caroga. July.

A small species remarkable for the hairy covering of the pileus. This is sufficiently dense to give to the pileus a whitish or pale-gray appearance. The species is apparently related to *A. tricholoma*, A. & S., and *A. strigiceps*, Fr.

Agaricus (Inocybe) subexilis, n. sp.

Pileus thin, convex or subcampanulate, then expanded, umbonate, fibrillose on the margin, at first pale chestnut color, then yellowish or subochraceous, lamellæ narrow, rather close, rounded behind, subventricose, whitish, becoming dull-ochraceous; stem equal, solid, flexuous, minutely pruinose, finely striate under a lens, pinkish, then yellowish; spores subglobose, nodulose, about .0003 in. in diameter.

Plant 8 to 12 lines high, pileus 3 to 5 lines broad; stem about .5 line thick.

Damp, mossy ground, in woods. Caroga. July.

A very small species, related to *A. paludinellus*, from which it differs in its smaller size, shape of the spores and brighter colors of the pileus.

Agaricus (Hebeloma) sordidulus, n. sp.

Pileus thin, rather firm, convex, viscid when moist, dingy brownish-red or tawny-brown, paler or whitish on the margin, flesh white, with a radish-like odor; lamellæ broad, close, rounded behind, slightly annexed, pallid, then brownish-ochraceous; stem short, equal, stuffed or hollow, slightly fibrillose, white, pruinose at the apex; spores subelliptical, .0005 to .00055 in. long, .00025 to .00028 broad.

Sandy soil, in open places. Karner. Oct.

Plant about 1 inch high, pileus 8 to 15 lines broad, stem 1.5 to 2 lines thick.

A small species, belonging to the section PUSILLI.

Agaricus (Hebeloma) parvifructus, n. sp.

Pileus convex, then expanded, slightly viscid, dingy-white, becoming grayish-brown or pale-chestnut colored with age, often paler on the margin; lamellæ broad, moderately close, slightly emarginate, at first white, then brownish-ochraceous; stem equal, silky-fibrillose, solid, whitish, stained with ferruginose or brown toward the base, pruinose and substriate at the apex; spores brownish-ochraceous, .00025 to .00028 in. long, .00016 to .00018 broad; veil white, arachnoid.

Plant three to four inches high, pileus two to three inches broad, stem three to five lines thick.

Sandy soil in pine woods. West Albany. Oct.

The spores of this plant are smaller than usual in species of this subgenus, and this character has suggested the specific name. The lamellæ are at first concealed by the copious, webby filaments of the veil. The species belongs to the section INDUSIATI.

Agaricus (Hypholoma) madeodiscus, n. sp.

Pileus thin, convex, becoming nearly plane, hygrophanous, pale chestnut or reddish brown when moist, grayish-tawny or pale-ochraceous and rugose on the disk when dry, the margin, when young, slightly silky-fibrillose; lamellæ close, slightly emarginate, whitish, then brown; stem equal or slightly thickened at the base, hollow, white, sub-silky; spores brown, elliptical, .00035 to .0004 in. long, .00025 broad.

Plant 2 to 3 inches high, pileus 1 to 2 inches broad, stem 2 to 3 lines thick.

Decaying wood in wet places. Adirondack mountains. June.

This species differs from *A. appendiculatus*, its nearest ally, by its larger size, less rugose pileus and larger spores. Also, it is unlike that species in parting with the moisture of the margin of the pileus first, the disk retaining it some time, a character which is suggestive of the specific name. I have not seen the plant growing in tufts. The veil is whitish and very delicate, and at first conceals the lamellæ from view. It at length adheres in fragments to the margin of the pileus.

Agaricus (Psilocybe) cærulipes, n. sp.

Pileus thin, subcampanulate, then convex and obtuse or obtusely umbonate, glabrous, hygrophanous, slightly viscid, watery brown and striatulate on the margin when moist, yellowish or subochraceous when dry, the disk sometimes brownish; lamellæ at first ascending, close, adnate, grayish-tawny, becoming ferruginous-brown, whitish on the edge; stem slender, equal, flexuous, tenacious, hollow or containing a separable pith, slightly fibrillose, pruinose at the apex, bluish, sometimes whitish at the apex; spores elliptical, .0003 to .0004 in. long, .00016 to .0002 broad.

Plant single or cæspitose, 1 to 1.5 in. high, pileus 5 to 10 lines broad, stem scarcely 1 line thick.

Decaying wood. South Ballston. Aug.

The species is easily recognized by the peculiar blue color of the stem. Sometimes the pileus also assumes a blue color where bruised.

Corprinus lagopus, Fr.

Decaying wood and vegetable mold in woods. South Ballston. Sept.

Cortinarius multiformis, Fr.

Pine woods. Karner. Oct.

Cortinarius decoloratus, Fr.

Pine woods. Karner. Oct.

Cortinarius (Dermocybe) aureifolius, n. sp.

Pileus convex, then plane or slightly depressed, densely fibrillose-tomentose, sometimes slightly squamulose, especially on the disk, cinnamon-brown; lamellæ rather broad, moderately close, subventricose, rounded behind, adnexed, yellow, becoming yellowish-cinnamon, stem short, solid, equal, fibrillose, yellow, brownish within: spores oblong, .00045 to .0005 in. long, .00016 to .0002 broad; flesh of the pileus yellow or pallid, odor like that of radishes.

Plant gregarious, 1 to 1.5 in. high, pileus 8 to 15 lines broad, stem 2 to 3 lines thick.

Sandy soil in thin pine woods. Karner. Oct.

The species resembles *C. cinnamomeus* in color, but its short stem, longer spores and different habit easily distinguish it. Its general appearance is similar to that of some species of *Inocybe*.

Hygrophorus purpurascens, Fr.

Sandy soil under pine trees. Karner. Oct.

In our specimens the pileus is fibrillose rather than squamulose, the stem is slightly mealy at the apex, not roughened with purplish squamules, and there is a webby veil which, in the young plant, conceals the lamellæ and forms a slight but evanescent annulus. Should these differences between our specimens and the species to which we have referred them be constant, it may be necessary to separate our plant as a distinct species.

Lactarius hyginus, Fr.

Mossy ground in woods and swamps. Caroga and Sandlake. July and Aug.

Lactarius varius, Pk.

Sandy soil. West Albany and Karner. Sept. and Oct.

Lactarius paludinellus, Pk.

Sphagnous marshes. Sandlake. Aug. For the descriptions of this and the preceding species of *Lactarius* see the article on the New York species of *Lactarius*.

Russula basifurcata, n. sp.

Pileus firm, convex, umbilicate, becoming somewhat funnel form, glabrous, slightly viscid when moist, the thin pellicle scarcely separable except on the margin, dingy-white, sometimes tinged with yellow or reddish-yellow, the margin nearly even; lamellæ rather close, narrowed toward the base, adnate or slightly emarginate, many of them forked near the base, a few short ones intermingled, white becoming yellowish; stem firm, solid, becoming spongy within, white; spores elliptical, pale yellow, uninucleate or shining, .00035 in. long, .00025 broad; flesh white, taste mild, then bitterish.

Pileus 2 to 3 inches broad, stem 8 to 12 lines long, 5 to 6 lines thick.

Dry hard ground in paths and wood roads. Caroga. July.

This species belongs to the section FRAGILES, but in some respects it closely resembles pale forms of *R. furcata*, from which it is separated by the absence of any silky micor and by the yellowish color and elliptical shape of the spores and by the yellowish hue of the lamellæ.

Lentinus suavissimus, Fr.

Dead willows, *Salix discolor*. Caroga. July. The strong but agreeable odor, resembling that of melilot, and the lamellæ crisped and anastomosing at the base readily distinguish this species, which is apparently very rare with us.

Boletus sulphureus, Fr.

Thin woods. Caroga. July.

But a single specimen was found and this does not fully agree with the description, but it is for the present placed here.

Boletus versipellis, Fr.

Sandy soil. West Albany and Karner. Oct.

This species so closely resembles some forms of *B. scaber* that it is not surprising that Persoon regarded it as a variety of that species. The reddish color, dry pileus and appendiculate margin are the most available distinguishing characters of the species. It is apparently quite rare.

Polyporus abortivus, Pk.

Buried sticks and decomposing vegetable matter. South Ballston. Aug. and Sept.

This species is remarkable for the abundance of its spores. It is so deformed and apparently imperfect in its development that such fruitfulness would scarcely be expected. The pileus, when sufficiently developed to be recognizable, is of a reddish or alutaceous color.

***Polyporus epileucus*, Fr. var. *candidus*, Pk.**

Decaying prostrate trunks of hemlock, *Abies canadensis*. Osceola, Lewis county. Aug.

Pileus snowy-white, scrupose, scarcely villose, somewhat fibrous within and slightly zonate toward the margin; pores plane or convex.

Our specimens, while not agreeing fully with the published characters of *P. epileucus*, approximate so closely to them that we have characterized this form as a variety.

***Polyporus crispellus*, n. sp.**

Pileus thin, fleshy, laterally elongated, undulate or subcrispate on the margin, radiate-rugose, subglabrous, whitish varied with brownish zones, flesh white, marked by a few linear hyaline or slightly colored zones; pores short, about equal in length to the thickness of the pileus, minute, subrotund, white, the thin dissepiments more or less dentate.

Pileus 8 to 12 lines broad, extending laterally 1 to 4 inches.

Prostrate trunks of hemlock. Osceola. Aug.

Closely allied to *P. destructor*, but distinguished by its zonate pileus and short pores. It is also apparently thinner and more undulate than that species.

***Polyporus (Physisporus) lætificus*, n. sp.**

Effused, thin, tender, not readily separable from the matrix, bright orange with a subtomentose yellowish margin; tubes short, often oblique minute, subrotund, the dissepiments thick, obtuse.

Decaying wood. South Ballston. Aug.

The fungus forms patches two or three inches long, following the inequalities of the surface. In the dried state the pores appear like little ruptured vesicles as in *P. vesiculosus*, B. & C. The species appears to approach *P. fulgens*, Rost., which has the margin white fibrillose and the pores acute.

***Polyporus (Physisporus) griseoalbus*, n. sp.**

Effused, thin, tender, adnate, uneven, scarcely margined, indeterminate, grayish-white, with a thin pulverulent subiculum; pores very minute, subrotund, often oblique.

Soft decaying wood of deciduous trees. Osceola. July.

The pores are sometimes collected in little heaps or tubercles as in *P. molluscus* and *P. Vaillantii*. In the dried state they are slightly tinged with creamy yellow.

***Polyporus (Physisporus) fimbriatellus*, n. sp.**

Widely effused, thin, tenacious, separable from the matrix, with a thin white fimbriate margin and a white subiculum, running into rhizomor-

phoid branching strings of mycelium or forming a somewhat reticulate fimbriate membrane ; pores minute, subrotund, equal, whitish inclining to cream color.

Under side of prostrate trunks of maple, forming extensive patches on the wood and bark. Osceola. Aug.

By its rhizomorphoid mycelium this species is related to *P. Vaillantii*, but the pores are smaller and not collected in heaps as in that species. By reason of its tenacious substance it is readily separable even from an irregular matrix.

Polyporus (Physisporus) ornatus, n. sp.

Effused, 1 to 2 lines thick, somewhat tenacious, adnate or inseparable from the matrix, white, the surface slightly undulate or uneven, the margin definite, studded with drops of moisture when fresh, spotted with dot-like depressions when dry ; pores subrotund, minute, unequal, often oblique.

Decaying prostrate trunks of deciduous trees. Osceola. Aug.

This species is at once distinguished by its adnate subiculum and its peculiarly spotted margin. The spots are watery white in the fresh state and each one is covered by a drop of moisture. In the dried plant the place previously occupied by the drop of moisture becomes a small depression in the subiculum.

Polyporus (Physisporus) odorus, n. sp.

Effused, 2 to 3 lines thick, even, firm but brittle, moist, separable from the matrix, white, sometimes stained with reddish-yellow on the abrupt, rather thick, slightly fimbriate margin ; pores very minute, rather long, equal, entire, white, arising from a thin but distinct subiculum ; odor strong, disagreeable.

Under surface of decorticated prostrate trunks of spruce. Osceola. Aug.

It forms patches several inches broad and sometimes more than a foot long. It is distinguished from *P. vulgaris* by being separable from the matrix, moist, having longer pores and a strong odor. From the next following species it may be known by its smaller pores, more brittle texture and its different odor.

Polyporus (Physisporus) subacidus, n. sp.

Effused, separable from the matrix, tenacious, flexible, uneven, determinate, the margin downy, narrow, pure white ; pores small, subrotund, 1 to 3 lines long, often oblique. whitish inclining to dingy-yellowish pale tan color or dull cream color, the dissepiments thin, more or less dentate ; odor strong, subacid.

Prostrate trunks and decaying wood of various trees, hemlock, spruce, birch, etc. Osceola. July.

This species is not rare, but it has probably been confused with its allies. It forms extensive patches, sometimes several feet in length. It adheres somewhat closely to the matrix, but its texture is so tough that it is generally easy to strip it from its supporting substance. It is apparently closely related to *P. medulla-panis*, but the description of that

species gives the pores as medium size and entire, and makes no mention of any odor, in consequence of which we have thought our plant distinct. It is, however, extremely variable.

Var. *tenuis* is very thin, scarcely a line thick, with short pores and the surface nearly even. It occurs on the smooth decorticated trunks of hemlock.

Var. *tuberculosis* has the surface more or less roughened by unequal prominent tubercles, which are either scattered or clustered. They appear to be a monstrous development of the mycelium on the surface of the pores.

Var. *stalactiticus* incrusts mosses and therefore has the surface very uneven with numerous and unequal porous protuberances. It most often occurs on prostrate mossy trunks of birches.

Var. *vesiculosus* (*P. vesiculosus*, B. & C.) has shallow scattered pores as if formed from ruptured vesicles.

Specimens of this Polyporus, unless dried under pressure, shrink and roll up in unmanageable shapes. They often contain considerable moisture when collected, and if put in press in this condition they are liable to become brown or blackish in drying. Specimens collected in a dry time or in dry situations retain their characters best. The thinner forms, if partly dried before they are put in press, sometimes retain their color and characters well. When growing on bark the patches are sometimes interrupted and irregular, in which case the margin is broader than usual and well defined.

Merulius (Resupinati) aurantiacus, n. sp.

Effused, membranous, tender, very soft, separable from the matrix, pale orange color, the subiculum soft, silky-tomentose, whitish and pale orange; hymenium gyrose-plicate and dentate, becoming paler with age; spores broadly elliptical, .00025 in. long, .0002 broad.

Soft decayed wood of hemlock. Osceola. Aug.

The species is distinguished by its soft tomentose texture and its orange hues. It is closely related to *M. aureus* but is at once distinct by its orange, not golden, color. The subiculum is composed of a stratum of whitish filaments next the matrix and another of orange color next the hymenium. Hence the margin in young plants is generally whitish. In mature ones the whole becomes orange colored. Notwithstanding the tender substance the membrane is separable from the matrix and pieces three or four inches in extent are thus obtainable.

Merulius fugax, Fr.

Soft decayed wood of deciduous trees. Osceola. Aug.

This has the tender, soft and delicate texture of the preceding species, but it is at first of a pure white color. Soon the hymenium assumes a creamy or yellowish hue and the folds appear, but there is often a wide margin destitute of them. In drying, the folds mostly collapse and disappear and the hymenium often becomes tinged with incarnate or flesh color. The wood on which it usually grows is so much decayed that it easily crumbles to pieces. Nevertheless the plant is separable from its matrix.

The spores are oblong, .0003 in. long, .0001 broad.

Geaster striatus, DC.

Sandy soil. Karner. Sept.

When the external peridium first opens and expands the inner peridium appears to be globose and sessile, but as the plant matures and dries the inner peridium is seen to be narrowed below and raised on a short pedicel.

Phyllosticta Labruscæ, Thum.

Living leaves of grapevines, *Vitis Labrusca*. Highland Mills, Orange county. July.

This differs from *P. viticola* in its more numerous, larger and more prominent perithecia and in its larger spores.

Phyllosticta Epigææ, n. sp.

Spots large, irregular, brown or reddish-brown; perithecia minute .0045 to .0055 in. broad, covered by the epidermis, erumpent, epiphyllous, black; spores elliptical, colorless, .0003 in. long, .00016 broad.

Living leaves of trailing arbutus, *Epigæa repens*. Caroga. July.

Phyllosticta lantanoidis, n. sp.

Spots rather large, suborbicular, cinereous, sometimes with a brown margin; perithecia minute, .004 in. broad, slightly prominent, epiphyllous, black; spores elliptical, colorless, binucleate, .00025 to .0003 in. long, .00016 broad.

Living leaves of hobble bush, *Viburnum lantanoides*. Caroga. July.

This differs from *P. tineæ* Sacc. in the larger size and binucleate character of the spores.

Phyllosticta Podophylli, Winter.

Living leaves of mandrake, *Podophyllum peltatum*. Albany. June.

Externally this resembles *Ascospora Podophylli* Curt., but the spores are very different.

Ascochyta Cassandræ, n. sp.

Spots suborbicular or irregular, reddish-brown or grayish with a reddish-brown margin; perithecia epiphyllous, minute, erumpent, blackish; spores oblong-fusiform, acute at each end, uniseptate, colorless, .0004 to .00065 in. long, .00012 to .00016 broad.

Living leaves of leather-leaf, *Cassandra calyculata*. Adirondack mountains. June and July.

Ascochyta colorata, n. sp.

Plate 2, figs. 9 and 10.

Spots indefinite, often confluent, red with a brownish center, paler on the lower surface; perithecia minute, .004 to .005 in. broad, black; spores oblong, somewhat pointed at one or both ends, straight or curved, slightly constricted in the middle, obscurely uniseptate, colorless, .0007 to .001 in. long, .0003 to .00035 broad.

Living leaves of strawberry, *Fragaria Virginiana*. West Albany. Aug.

This differs from *A. Fragariæ* Sacc. in the color of the spots and in the size and character of the spores.

Phoma Phytolaccae, B. & C.

Dead stems of poke weed, *Phytolacca decandra*. Albany. June.

In our specimens the spores are a little longer than the dimensions given in the description of the species and the perithecia are sometimes slightly compressed or subhysteriiform.

Phoma elevatum, n. sp.

Perithecia numerous, small, rotund, oval or hysteriiform, sunk in the matrix but occupying small elevations or ridges, black; spores ovate or subelliptical, colorless, .0003 in. long, .00016 broad.

Decorticated wood of deciduous trees. Adirondack mountains. June.

The marked feature of the species and one suggestive of the name is the position of the perithecia. Each one occupies a minute ridge or pustular elevation of the wood.

Phoma Pruni, n. sp.

Perithecia small, slightly prominent, subconical, at first covered by the epidermis, then erumpent, black; spores oblong-elliptical or subfusiform, binucleate, hyaline, .00035 to .00045 in. long, .00012 to .00016 broad, supported on equally long or longer sporophores.

Dead branches of choke cherry, *Prunus Virginiana*. Karner. June.

Phoma albifructum, n. sp.

Perithecia numerous, large, .02 to .03 in. broad, conical or subhemispherical, sometimes irregular and two or three confluent, erumpent, black; spores oblong-fusiform, acute at each end, two to four-nucleate, colorless, .00065 to .00085 in. long, .0002 to .00025 broad, oozing out and forming a white globule.

Dead bark of maple, *Acer rubrum*. Karner. June.

The perithecia and spores are unusually large for a *Phoma* and would seem to justify Prof. Saccardo's proposed genus *Macrophoma*.

Sphæroopsis ribicola, C. & E.

Dead stems of *Ribes floridum*. Bethlehem, Albany county. May.

Sphæroopsis alnicola, n. sp.

Perithecia numerous, .0014 to .002 in. broad, prominent, hemispherical, erumpent, sometimes confluent, forming black patches, spores oblong, colored, .0006 to .00095 in. long, .00035 to .0004 broad.

Dead branches of alder. West Albany. Apr.

S. Alni C. & E. has smaller spores and inhabits living branches.

Appendicularia, gen. nov.

Plate 3, figs. 1-4.

Perithecium thin, delicate, rostrate, supported on a filamentous pedicel and accompanied by an appendage at its base. Entomophilous.

This genus has been formed to receive the single species here described. Its name is suggested by the appendicular organ at the base of the perithecium and supported with it by the common pedicel.

Appendicularia entomophila, n. sp.

Perithecia oval, brown, .0045 to .0055 in. long, .0035 to .004 broad, tapering abruptly above into a long, pale, somewhat pointed, straight or slightly curved rostrum .008 to .0095 in. long and about one-tenth as broad, supported below by a pale pedicel .012 to .013 in. long, about one-tenth as broad; pedicel two-septate, slightly thickened at the apex and bearing on one side, at the base of the perithecium, an oblong appendage about .0016 in. long; spores narrowly fusiform, pointed at each end, septate near the middle, colorless, .0012 to .0018 in. long, about one-tenth as broad, escaping at the apex of the rostrum.

On small flies, *Drosophila nigricornis*, Nyack, Rockland county. March. *Rev. J. L. Zabriskie*.

Specimens of this minute but interesting fungus, beautifully mounted on microscopic slides, were sent me by Mr. Zabriskie, who discovered them on small flies in his cellar in March last. He writes that they appeared during the first warm days of Spring, but disappeared upon the return of colder weather a few days later. The fungus grows upon almost any part of the body, the head, thorax, abdominal rings and occasionally on the costæ of the wings, but most frequently on the legs. Attached to one leg sent me are seven well-developed specimens of the fungus and one or two imperfect ones. The whole fungus is about one-fortieth of an inch long, or less than one-third of a line. It would not, therefore, be readily seen by the untrained naked eye of an observer. The perithecium, which is of a beautiful amber-brown color in the mounted specimens, appears like an enlargement of the central part of the fungus, its long rostrum or beak extending above it nearly as far as its pedicel does below it. The pedicel has one septum a little below the perithecium and another a little below the middle. At the apex it is slightly thickened, which gives it a somewhat clavate shape, and this enlargement is obscurely marked by short transverse and longitudinal septa or wrinkles. On one side, at the base of the perithecium is the singular erect appendage, the office of which is involved in obscurity. It is even and glabrous on the side next the perithecium, but elsewhere it is roughened by short ascending projections or serrations.

The affinities of the fungus are not clear. The non-ascigerous perithecium, the long, slender rostrum and the free spores oozing out at its apex indicate a relationship to species of *Sphæronema* (a genus of imperfect fungi), but the delicate texture and filamentous pedicel are very unlike any thing in that genus. Possibly its true relationship may be with the *Saprolegniæ*, but for our present purpose it is placed with the imperfect fungi.

Sphærographium hystricinum, Sacc.

Plate 8, figs. 5-7.

Dead stems of *Viburnum nudum*. Caroga. July.

This is *Sphæronema hystricinum*, Ellis, and is possibly a condition of some species of *Cenangium*.

Sphærographium lantanoidis, n. sp.

Perithecia minute, terete or subconical, truncate at the apex, black; spores subfiliform, curved or flexuous, slightly narrowed toward each

end, colorless, sometimes multinucleate, .0016 to .0025 in. long, oozing out and forming a whitish globule

Dead stems of *Viburnum lantanoides*. Adirondack mountains. June.

***Gelatinosporium fulvum*, n. sp.**

Perithecia cæspitose, crowded, erumpent, externally pulverulent, pale-tawny, opening at the apex when moist and revealing the white spore-mass within; spores elongated, curved, gradually tapering toward each end, colorless, .003 in. long.

Dead branches of birch, *Betula lutea*. Caroga. July.

This is the third species of this genus that has its habitat on birch.

***Coniothyrium valsoideum*, n. sp.**

Perithecia cæspitose, crowded, erumpent, surrounded by the laciniae of the ruptured epidermis, subglobose or angular from mutual pressure, black; spores numerous, subglobose or ovate, colored, .0002 to .00025 in. long, nearly as broad.

Dead branches of alder. West Albany. Apr.

***Septoria Ribis*, Desm.**

Living leaves of fetid currant, *Ribes prostratum*. Adirondack mountains. June.

***Septoria alnicola*, Cke.**

Living leaves of alder, *Alnus incana*. Caroga. July.

***Septoria Lysimachiae*, West.**

Living leaves of *Lysimachia ciliata*. Osceola. Aug.

***Septoria Dalibardæ*, n. sp.**

Spots small, whitish or cinereous, with a reddish-brown margin, perithecia minute, epiphyllous, few, black; spores filiform, nearly straight, .0015 to .002 in. long.

Living leaves of *Dalibarda repens*. Caroga. July.

This species closely resembles *S. Waldsteiniae*, but the spores are much longer than in that species.

***Septoria Dentariæ*, n. sp.**

Spots large, suborbicular, indefinite, greenish, perithecia minute, numerous; slightly prominent, epiphyllous, black; spores filiform, nearly straight, .0008 to .0012 in. long, oozing out in yellowish or amber-colored tendrils or masses.

Living or languishing leaves of pepper-root, *Dentaria diphylla*. Adirondack mountains. June.

***Septoria punicei*, n. sp.**

Spots two to four lines broad, indefinite, blackish-brown above, brown or reddish-brown below, perithecia hypophyllous; spores very long, flexuous, filiform, white in the mass, .004 to .0045 in. long.

Living leaves of *Aster puniceus*. Caroga. July.

The species is well marked by its very long and very white spores.

Septoria Trillii, Pk.

Living leaves of *Trillium erectum*. Adirondack mountains. June.

Septoria fumosa, n. sp.

Spots angular or irregular, often confluent, smoky-brown or grayish-brown with a darker margin; perithecia epiphyllous, .0025 to .003 in. broad, black; spores filiform; .0012 to .002 in. long.

Living or languishing leaves of *Solidago Canadensis*. Albany. June. The spores are shorter than those of *S. Virgaureæ*.

Septoria Diervillæ, n. sp.

Spots suborbicular, whitish or cinereous, with a broad indefinite brown or purplish-brown margin; perithecia epiphyllous, minute, black; spores filiform, curved or flexuous, very slender, .001 to .0016 in. long.

Living or languishing leaves of *Diervilla trifida*. Adirondack mountains. June.

The spots, which are at first brown or purplish-brown, at length become paler and arid in the center, and on this central part the perithecia appear.

Rhabdospora subgrisea, n. sp.

Perithecia numerous, punctiform, depressed, black, covered by the epidermis, generally forming long, indefinite, grayish-brown spots; spores filiform, straight or curved, .0012 to .0025 in. long.

Dead stems and galls of various species of *Solidago*. Albany. G. W. Clinton. West Albany. Apr. and May.

Diplodia pinea, Kx.

Dead bark of pine, *Pinus Strobus*. West Albany. May.

In our specimens the spores are .0008 to .0014 in. long and .0005 to .0007 broad, which is somewhat less than the dimensions given in the description. Our plant is, therefore, distinguished as variety *corticola*.

Staganospora Smilacis, Sacc.

Living leaves of *Smilax herbacea*. Albany. G. W. Clinton. West Albany. May.

The spots closely resemble those of *Sphæroopsis smilacina*, Pk., *Phoma smilacina*, Sacc., which may be an immature or imperfectly developed form of the same species. It is *Ascochyta Smilacis*, E. & M.

Glæosporium Ribis, Cast.

Living or languishing leaves of fetid currant, *Ribes prostratum*. Adirondack mountains. June.

In our specimens the spores are a little longer than in our European specimens and longer than the dimensions given in some of the descriptions, but I see no other difference.

Glæosporium Salicis, West.

Languishing leaves of *Salix longifolia*. North Greenbush. Sept. Our specimens have the spores either simple or two or three-nucleate.

and generally a little thicker toward one end. In size they are .0006 to .0009 in. long, .0003 to .0004 broad. Fuckel considers the species as the stylosporous condition of *Trochila Salicis*, Tul. It is very unlike *Glæosporium salicinum*, Pk., which is rather a Septoglœum, though the septa are obscure.

Marsonia Quercus, n. sp.

Spots angular or suborbicular, whitish or reddish-gray, definite, nucleus hypophyllous; spores oblong or subcylindrical, straight or curved, slightly constricted in the middle, obscurely uniseptate, colorless, .0005 to .0006 in. long, .0001 to .00016 broad, oozing out and forming a reddish or reddish-amber colored tendril or mass.

Living leaves of *Quercus ilicifolia*. Karner. Aug.

Pestalozzia monochætoidea, S. & E.

Dead stems of nine-bark, *Spiræa opulifolia*. West Albany. Apr.

Ramularia Diervillæ, n. sp.

Plate 1, figs. 16-18.

Spots suborbicular, whitish or cinereous with a dark-brown margin, definite; flocci amphigenous, minute, tufted; spores cylindrical, colorless, .0005 to .001 in. long, .00008 to .00016 broad.

Living leaves of *Diervilla trifida*. Adirondack mountains. June.

Ramularia multiplex, n. sp.

Spots large, sometimes occupying the whole leaf, red or greenish-yellow, becoming brown when old, the lower surface, and sometimes both surfaces, frosted by the fungus; flocci and spores whitish or subcinereous, the latter very variable, subglobose elliptical, oblong or cylindrical, .00016 to .002 in. long, .00016 to .0002 broad, sometimes catenulate.

Living leaves of cranberry, *Vaccinium Oxycoccus*. Caroga. July.

Ramularia Prini, n. sp.

Plate 1, figs. 19-21.

Spots small, suborbicular, cinereous or whitish, with a brown margin, definite; spores hypophyllous, oblong or subfusiform, colorless, .0005 to .0009 in. long, .00016 to .0002 broad.

Living leaves of *Ilex verticillata*. Caroga. July.

The spores are tufted, but so minute that they are scarcely visible to the naked eye. This and the two preceding species are referred to the genus *Ramularia* with some hesitation. The hyphæ are minute and obscure, and I have seen no septate spores, but in other respects they appear to belong here. The next species, which rarely has uniseptate spores, forms a connecting link between these and the succeeding one.

Ramularia Oxalidis, Farl.

Plate 1, figs. 13-15.

Living leaves of wood sorrel, *Oxalis acetosella*. Adirondack mountains. June.

Cylindrosporium veratrinum, S. & W.

Plate 1, figs. 10-12.

Living leaves of Indian poke, *Veratrum viride*. Adirondack mountains. June.

This fungus appears to me to be ambiguous, between the genera *Cylindrosporium* and *Ramularia*. Distinct, though short hyphæ are present; and the spores are very long and clearly septate, in violation of the generic character of *Cylindrosporium*. The fungus is sometimes either associated with or followed by oblong black spots or patches, which are sometimes confluent, and which bear minute black perithecia containing oblong or cylindrical spore-like bodies about .0002 in. long.

Ovularia moniloides, E. & M.

Plate 2, figs. 1-4.

Living leaves and dead branches and aments of sweet gale, *Myrica Gale*. Adirondack mountains. June.

A very variable species. Sometimes the spots are few and scattered, again they are numerous, small or large, and often confluent, occupying nearly the whole leaf. Sometimes the fungus extends to the branches, both dead and living, which it surrounds with its white flocculent patches.

Peronospora Arthuri, Farl.

Living leaves of evening primrose, *Oenothera biennis*. Albany. June.

Peronospora Halstedii, Farl.

Living leaves of *Ambrosia trifida*. North Greenbush. Sept.

This often grows upon the spots occupied by *Protomyces polysporus*.

Peronospora Potentillæ, De By.

Living leaves of purple avens, *Geum rivale*. Adirondack mountains. June.

Entyloma Saniculæ, n. sp.

Plate 1, figs. 7-9.

Spots numerous, small, close or subconfluent, orbicular or subangular, varying in color from whitish or greenish to brown or reddish-brown; conidia amphigenous, filiform or linear, straight or curved, colorless, .0012 to .0024 in. long, .00008 to .0001 broad. Sometimes plurinucleate; spores subglobose, .00055 to .00065 in. broad.

Living leaves of sanicle, *Sanicula Marilandica*. North Greenbush. May.

The very long slender conidia are a distinguishing feature in this species.

Cercospora Violæ, Sacc.

Living leaves of violets, *Viola blanda*. Osceola. Aug.

In our specimens the spores are shorter than the dimensions given for the type, from which it is probable that they are a variety. They are .003 to .004 in. long, but pluriseptate as in the typical specimens.

Cercospora Cephalanthi, E. & K.

Living leaves of *Cephalanthes occidentalis*. Karner. Aug.

Cercospora Comari, n. sp.

Plate 1, figs. 1-3.

Spots irregular, indefinite, sometimes confluent, reddish-brown; flocci minutely tufted, amphigenous, slender, flexuous, colored, .005 to .0065 in. long, .0002 broad; spores clavate, obscurely two to three septate, slightly colored, .002 to .003 in. long, .0003 broad in the widest part.

Living leaves of *Potentilla palustris* (Comarum palustre). Karner. July.

Cercospora Majanthemi, Fckl.

Living leaves of two-leaved Solomon's Seal, *Majanthemum bifolium*. Caroga. July.

Our specimens vary a little from the description of the species to which we have referred them, but they are probably only an American variety of the species. The spots are margined with red or brownish-red and the spores are nucleate, but I have not seen them septate. They appear to rise from a minute reddish or pink-colored tubercle.

Hadrotrichum lineare, n. sp.

Plate 1, figs. 4-6.

Flocci amphigenous, densely cæspitose, subflexuous, black, forming oblong or linear black sori; spores terminal, ovate, oblong-ovate or oblong-pyriform, colored, .00065 to .0011 in. long, .00045 to .00055 broad, sometimes becoming constricted in the middle.

Living and dead leaves of *Calamagrostis Canadensis*. Adirondack mountains. June.

I have referred this fungus provisionally to the genus *Hadrotrichum*, although it does not rigidly agree with the description of that genus, in which the flocci are characterized as short. In our plant they are .002 to .003 in. long. By their tufted mode of growth they appear to deviate from the allied genus *Monotospora*. The spores, so far as observed, do not become definitely uniseptate, though in a few instances the endochrome seemed to be divided and the spores constricted in the middle as if about to multiply by division. They are colored, but are slightly paler than the flocci. These form definite linear or oblong sori or patches which are often parallel and sometimes repeatedly interrupted and look like a series of dots. At first sight they might be mistaken for some species of *Puccinia*.

Cenangium balsameum, n. sp.

Receptacle single or cæspitose, sessile, erumpent, externally black or blackish, greenish-yellow within, disk plane or convex, blackish bay-red or greenish-yellow when moist, black and somewhat uneven when dry; asci clavate, .004 to .0055 in. long, .0005 to .0006 broad; spores oblong or subfusiform, sometimes slightly curved, simple, greenish-yellow, .0008 to .0012 in. long, about .0003 broad.

Dead branches of balsam, *Abies balsamea*. Caroga. July.

This has probably been confused with *C. ferruginosum*, which it somewhat resembles, but the spores are much larger than the dimensions ascribed to the pores of that species, and larger than the spores in the specimens of that species in *Mycotheca Universalis*.

Sphærotheca pannosa, Lev.

Living leaves of wild rose, *Rosa parviflora* Ehrh. West Albany. Aug.

Microsphæria Nemopanthis, n. sp.

Mycelium arachnoid, thin, amphigenous; appendages few, five to twelve, equal to or a little longer than the diameter of the perithecia, terminally four or five times dichotomous, colored, sometimes forked near the base, the ultimate ramuli recurved; asci about four; spores six to eight.

Living leaves of *Nemopanthes Canadensis*. Karner. Sept.

The species is apparently allied to *M. Berberidis*, from which it is separated because of its fewer asci and colored appendages.

Capnodium Citri, B. & D.

On oranges, Albany. Not ascigerous. Introduced with the fruit which it inhabits.

Asterina nuda, n. sp.

Plate 2, figs. 11-15.

Perithecia numerous, closely gregarious or crowded, superficial and naked or with a few short obscure radiating filaments at the base, globose or subdepressed, .003 to .004 in. broad, black; asci oblong or subcylindrical, .0016 in. long, .0005 broad; spores crowded or biseriate, oblong, uniseptate, colorless, .0004 to .0005 in. long, .0002 to .00025 broad.

Dead leaves of balsam fir, *Abies balsamea*. Adirondack mountains. June.

Externally this species resembles *Sacidium Pini*, but its fruit is very different. The perithecia are generally arranged in three linear patches, one along the middle of the upper surface of the leaf and two on the lower surface, one on each side of the midvein. They are less numerous on the upper surface than on the lower, and are sometimes entirely absent there. The radiating mycelioid filaments are not always present, and but for the superficial perithecia the species might easily be referred to the genus *Sphærella*. The bilocular colorless spores indicate the section *Asterella*.

Valsa pauperata, C. & F.

Dead bark of maple, *Acer rubrum*. Karner. June.

In our specimens it is not uncommon to find a half dozen perithecia in one pustule, although in the typical form there are but two or three. A whitish or pale-grayish pulverulent disk often exists, which is at length obliterated by the black ostiola. The spores are .00064 to .0008 in. long, .0002 to .00025 broad, which is somewhat larger than the dimensions given in the description of *V. pauperata*, nevertheless we think our specimens are only a form or perhaps a variety of that species. The pustules are often arranged in long flexuous lines as in the type.

Valsa cornina, n. sp.

Pustules small, scattered, at first covered by the epidermis, which is at length longitudinally ruptured; perithecia two to five in a pustule,

nestling in the inner bark, black, the ostiola scarcely exerted ; asci clavate, blunt, .002 to .0024 in. long ; spores collected in the upper part of the ascus, allantoid, .0006 to .0007 in. long, .00016 broad.

Dead branches of *Cornus paniculata*. Albany. Apr.

I have distinguished this species from others growing on *Cornus*, because of its different habit and larger spores.

Valsa Friesii, Fckl.

Dead bark of *Abies balsamea*. Adirondack mountains. June.

Valsa opulifoliæ, n. sp.

Pustules subconical or subhemispherical, erumpent ; perithecia five to twenty in a pustule, nestling in the inner bark, crowded, often angular from mutual pressure, ostiola crowded, black, obliterating the grayish disk ; asci subclavate, the sporiferous part .0012 to .0016 in. long, .00025 to .0003 broad ; spores allantoid, crowded above, uniseriate below, .0004 to .0005 in. long, .00008 to .0001 broad.

Dead branches of *Spiræa opulifolia*. West Albany. Apr.

The species is apparently related to *V. pustulata* Aw., but the crowded ostiola are central on the disk. When the epidermis is torn away the pustules appear much like those of *V. colliculus* Wormsk.

Valsa leucostomoides, n. sp.

Pustules numerous, minute, covered by the epidermis which is pierced by the orbicular white or grayish disk ; perithecia two to six or more in a pustule, the ostiola punctiform, black, dotting the disk ; asci clavate or subfusiform, .0016 to .002 in. long, .00035 to .0004 broad ; spores crowded, allantoid, colorless, .0005 to .00065 in. long, .00016 to .0002 broad.

Dead branches of sugar maple, *Acer saccharinum*. Helderberg mountains. May.

The very small size of the pustules and the minute white pulverulent disk give to this species an external appearance resembling that of *V. leucostoma* Fr., but there is no circumscribing black line and the species is apparently quite distinct and easily known by this character.

Diatrypella Frostii, Pk.

Dead stems of wild hazel-nut, *Corylus Americana*. West Albany Nov.

Diaporthe Wibbei, Nts.

Dead branches of sweet gale, *Myrica Gale*. Adirondack mountains. June.

The species is placed in the section *Tetrastaga*, but in our specimens there is no circumscribing black line. The spores are a little broader than the dimensions given in the description, being .0002 to .00025 in broad, and they sometimes terminate in a slight bristle-like point. In other respects the specimens agree well with the specific characters.

Diaporthe cylindrospora, n. sp.

Pustules valsoïd, somewhat prominent, erumpent, scattered; perithecia numerous, fifteen to thirty or more, crowded, covered by the thin blackened surface of the inner bark, the ostiola rather long, crowded, exserted, about equalling the surrounding elevated epidermis, black; asci narrow, subfusiform, .0018 to .0022 in. long, .00025 to .0003 broad; pores subcylindrical, crowded or biseriate, quadrinucleate, colorless, .0005 to .00065 in. long, .00012 to .00016 broad.

Dead branches of wild bird cherry, *Prunus Pennsylvanica*. Adirondack mountains. June.

I have not been able to detect any distinctly septate spores, yet in every other respect this fungus evidently belongs to this genus, and I have thought best to refer it here for the present.

Didymosphæria Typhæ, n. sp.

Perithecia minute, punctiform, subglobose, covered by the epidermis, which is pierced by the scarcely papillate ostiolum; asci cylindrical, .0025 to .0035 in. long, .0003 to .0004 broad; spores oblong or elliptical, uniseriate, uniseptate, not at all or but slightly constricted at the septum, colored, .0004 to .0006 in. long, .0002 to .00025 broad; paraphyses filiform.

Base of dead leaves of *Typha latifolia*. Guilderland, Albany county. May.

Sphærella conigena, n. sp.

Perithecia small, scattered or gregarious, slightly prominent, erumpent, black; asci subcylindrical, .0025 to .0035 in. long, about .0005 broad; spores crowded, oblong-clavate, constricted at the septum, .0004 to .0005 in. long, .00016 to .0002 broad, the cells unequal, the lower one tapering downward, narrower than the subglobose or elliptical upper one.

Fallen cones of hemlock, *Abies Canadensis*. Helderberg mountains. May.

It differs from *S. Pinsapo* in its longer asci, and longer and differently shaped spores, as well as in its habitat. A similar, if not the same, species occurs on cones of *Thuja occidentalis* in the same locality, but owing to the immaturity of the fruit it is still in doubt.

Venturia Cassandrae, n. sp.

Plate 3, figs. 11-14.

Spots reddish-brown or brownish, sometimes with a grayish center; perithecia on one or both surfaces, minute, .0028 to .0032 in. broad, black, with a few short, straight, diverging black setæ above, .0012 to .0016 in. long; asci oblong, gradually and slightly narrowed above, .0016 to .0018 in. long, .0003 to .0004 broad; spores biseriate, oblong, quadrinucleate, .0005 in. long, .0002 broad.

Living leaves of *Cassandra calyculata*. Caroga. July.

The perithecia sometimes occur on the upper surface of the leaf, but oftener on the lower. They are so small that they are scarcely visible to the naked eye. Sometimes they emerge from beneath the scales of the leaf, and then they appear erumpent, although in reality they are superficial.

Leptosphæria Corallorhizæ, n. sp.

Plate 2, figs. 20-23.

Perithecia numerous, minute, .004 to .005 in. broad, erumpent, black, with a minute ostiolum; asci cylindrical, sessile, .002 to .003 in. long, .0003 to .00035 broad; spores crowded or biseriate, subfusiform, triseptate, slightly constricted at the middle septum, yellowish-brown, .0008 to .001 in. long, .00016 to .0002 broad.

Dead stems of *Corallorhiza multiflora*. Caroga. July.

Leptosphæria eutypoides, n. sp.

Perithecia numerous, closely gregarious, .01 to .011 in. broad, hemispherical or depressed, at first covered by the epidermis, then naked, black, ostiola papilliform; asci clavate or subcylindrical, .004 to .0045 in. long, .0005 to .00065 broad; spores ovate or oblong, straight or slightly curved, triseptate, usually constricted at the septa, yellowish-brown, .0008 to .0009 in. long, .0003 to .0004 broad, paraphyses filiform.

Dead stems of large herbs, as *Chenopodium album*. Albany. May.

The matrix becomes blackened, which, with the nearly uniform distribution of the numerous perithecia, is suggestive of the appearance of some species of *Eutypa*.

Leptosphæria lycopodiicola, n. sp.

Plate 2, figs. 16-19.

Perithecia small, .005 to .006 in. broad, sphaeroid or elliptical, erumpent, black; asci subcylindrical, nearly sessile, .0025 to .003 in. long, .0003 to .0004 broad; spores oblong or subfusiform, slightly colored, three to five-septate, .0008 to .001 in. long, .00016 to .0002 broad.

Dead peduncles of *Lycopodium clavatum*. Adirondack mountains. June.

The perithecia are associated with a minutely tufted, blackish *Cladosporium*. Some of them are laterally compressed. The covering epidermis generally ruptures longitudinally. The spores are much more narrow in this than in *L. Crepini* and *L. Marcyensis*, both of which inhabit species of *Lycopodium*.

Metasphæria Myricæ, n. sp.

Plate 2, figs. 24-27.

Perithecia numerous, broadly conical, .016 to .021 in. broad, covered by the thin closely-adhering epidermis, black, white within, ostiola pertuse; asci clavate, obtuse, .004 to .005 in. long, .0006 to .0008 broad; spores crowded or biseriate, oblong or subfusiform, straight or slightly curved, at first uniseptate, quadrinucleate, strongly constricted at the middle septum, finally triseptate, colorless, .0012 to .0016 in. long, .0004 to .0005 broad; the paraphyses numerous, conglutinate.

Dead branches of *Myrica Gale* lying partly in water. Caroga. July.

The epidermis is so closely adherent that the perithecia appear as if superficial or merely innate at the base. The nuclei of the spores are large. Spores with three septa are rare, but this may be due to the immature condition of the specimens.

Sphærulina sambucina, n. sp.

Perithecia minute, numerous, closely gregarious, unequal and irregular, orbicular, oblong or even flexuous, covered by the epidermis, erumpent, opening by a pore or a narrow chink, black, asci clavate or subcylindrical, .003 to .005 in. long, about .0005 broad, paraphysate; spores crowded or biseriate, oblong-clavate, constricted at the middle septum, five to seven-septate, colorless, .0009 to .0012 in. long, .0003 to .00035 broad, the lower half more narrow than the upper.

Dead branches of elder, *Sambucus Canadensis*. West Albany. May.

This is apparently related to *S. intermixta*, and, like that species, it is remarkable for its anomalous and irregular perithecia, but it is distinguished from it by its longer asci and longer spores, strongly constricted in the middle, and with more numerous septa.

Cryptospora Caryæ, n. sp.

Plate 2, figs. 28-31.

Pustules scattered, covered by the epidermis, erumpent, circumscribed by a black line or at length covered by a black crust beneath the epidermis, perithecia four to twelve in a pustule, globose or angulated by mutual pressure; ostiola crowded, rather prominent, subglobose, even, black; asci subclavate, .004 to .005 in. long, .0005 to .0006 broad, spores crowded or biseriate, subcylindrical, slightly narrowed toward one or both ends, granular within, at length spuriously three to five-septate by the division of the endochrome, colorless, .0016 to .0024 in. long, .00025 to .00032 broad.

Dead branches of hickory, *Carya alba*. Knowersville. May.

The epidermis is loosened over the pustules and is generally ruptured in longitudinal chinks. When it is removed the blackened pustules are conspicuous. The spores are sometimes constricted in the middle.

Mazzantia sepium, Sacc. & Penz.

Dead stems of *Calystegia Sepium*. North Greenbush. May.

The spores in our specimens are a little larger than in the typical form and trinucleate.

D.

REMARKS AND OBSERVATIONS.**CAULOPHYLLUM THALICTROIDES, L.**

A form occurs on the Helderberg mountains which bears two panicles, or clusters of flowers. One is much smaller than the other, and is usually about three flowered.

VIOLA CUCULLATA, Ait.

The variety with peduncles, much longer than the petioles (var. *longipes*), is common in wet places in the Adirondack region. It blossoms there about the middle of June.

HYPERICUM ELLIPTICUM, *Hook.*

A small form with stems eight to twelve inches high, and leaves erect and appressed, was found in wet places by the roadside in Caroga. This position of the leaves gives a peculiar aspect to the plants.

RHUS TYPHINA, *L.*

The form with lacinate leaves has been found near Nyack, Rockland county, by *Rev. J. L. Zabriskie*.

ROSA SETIGERA, *Mx.*

Low ground near West Albany. Introduced from the West.

RUBUS HISPIDUS, *L.*

Common in Caroga and not infrequent with five-foliate leaves on the young stems.

FEDIA RADIATA, *Mx.*

Wynantskill, Rensselaer county. *H. C. Gordinier*. This is a form with smooth fruit.

ARALIA NUDICAULIS, *L.*

A form with no leaf but with the scape bearing four to six umbels at the apex and a branch near or below the middle. This branch is terminated by a single umbel, and probably represents the usual leaf.

ARALIA HISPIDA, *Mx.*

This sometimes grows with great vigor in the Adirondack region. A specimen was found in Caroga, more than three feet high and bearing upwards of forty umbels, the large central and terminal one being two and a half inches in diameter.

CUPHEA VISCOSISSIMA, *Jacq.*

This plant appears to be gradually extending its range northward in the Hudson river valley. It has occurred in the vicinity of Pine Plains and at Salt Point, Dutchess county, and the past season it was detected near Catskill by Judge *Clinton*. On the authority of Drs. Stevenson and Knieskern it was reported in the State Flora as an inhabitant of the "northern part of the State," but I suspect this is a mistake.

TUSSILAGO FARFARA, *L.*

Abundant on clay banks about Albany and Troy. In rare instances the leaves appear while the plant is yet in flower. The rays assume a reddish hue with age and the scapes become elongated.

HIERACIUM AURANTIACUM, *L.*

This plant has become well established in many parts of the State and is still spreading. The past season it was observed in Fulton county, where it had evidently escaped from a flower garden to the roadside.

VACCINIUM PENNSYLVANICUM, *Lam.* var. *NIGRUM*.

Caroga, where it was growing sparingly with the ordinary form of the species.

CASTILLEIA COCCINEA, *Spreng.*

The usual habitat, ascribed to this species in the manuals, is wet meadows and sandy low grounds. In Springwater, Livingston county,

and in Canadice, Ontario county, it was found by Mr. *D. Byron Waite* growing on the "tops and sides of bare dry and sterile hills, and where low shrubs and moss abound."

HYDRANGEA ARBORESCENS, *L.*

Wellsburg, Chemung county. *E. A. Burt.*

POTAMOGETON ROBBINSII, *Makes.*

Hudson river near Rhinebeck. *H. Andrews.* The plants were sterile as usual.

HABENARIA ROTUNDIFOLIA, *Rich.*

Turin, Lewis county. July. *R. B. Hough.* This is the second locality in the State for this rare plant. Mr. Hough informs me that it is difficult to obtain perfect specimens of this plant, most of the flowers being injured, apparently by some insect.

TRILLIUM GRANDIFLORUM, *Salisb.* v. *VARIEGATUM.*

This interesting variety or form has the leaves petiolate and the petals variegated with green, which is usually in the form of a broad longitudinal stripe through the middle. It was discovered in dense woods near Jamesville, Onondaga county, by members of the Syracuse Botanical Club, and specimens were contributed to the Herbarium by Mrs. *L. L. Goodrich* and Mrs. *S. M. Rust.* It has also been found on Goat Island by Hon. *G. W. Clinton.* In the Jamesville locality it was associated with *Trillium erectum* and typical *T. grandiflorum.* In one specimen communicated by Mrs. Goodrich the petioles originate near the ground, the stem being very short. They are about three and a half inches long and the peduncle is five inches long. In other specimens these parts are less elongated and the form appears to be merged into the type. The specimens indicate a coincidence between the petioles, peduncles and green color of the petals. Generally the longer petioles are accompanied by longer peduncles and broader green stripes on the petals. This coincidence between form and color is remarkable.

JUNCUS TRIFIDUS, *L.*

Sam's Point, Shawangunk mountains. Prof. *N. L. Britton.* Probably this is the most southern station for this *Juncus* in our State. It occurs at Lake Mohunk and also on the high summits of the Adirondack mountains.

SCIRPUS POLYPHYLLUS, *Vahl.*

Catskill. *G. W. Clinton.* A rare species in our State.

SCIRPUS SYLVATICUS, *L.*

Wet places about half a mile south-east of Loudonville.

GLYCERIA FLUITANS, *L.*

Caroga lake. The form with long flat linear floating leaves, suggestive of the specific name, is not rare in the lakes of the Adirondack region, but it is not always fertile.

AIRA CÆSPITOSA, *L.*

Wet ground. Caroga. It was growing in company with *A. flexuosa* which usually inhabits dry, rocky, sterile hills.

MILLIUM EFFUSUM, *L.*

A tall glaucous-leaved form, is plentiful in woods in the Boreas river valley in Minerva, Essex county.

PELLÆA GRACILIS, *Hook.*

About the entrance of a limestone cavern, Minerva. The presence of limestone appears to be a necessity to this rare little fern. Although there are many localities in the Adirondack region which seem favorable to its growth, I have never observed it there except in the immediate vicinity of limestone, and as this is in limited quantity and scattered stations, this fern occupies there very isolated and limited localities. In the station mentioned it was in company with *Aspidium aculeatum* Sw. v. *Braunii*.

WOODWARDIA VIRGINICA, *Sm.*

Abundant in a marsh near Karner.

AGARICUS STIPITARIUS, *Fr.* v. SETIPES.

Stem elongated, straight, very slender, three to four inches long, scarcely as thick as a knitting needle. Caroga. July. Specimens of this species revive on the application of moisture, thus indicating a close relationship to species of *Marasmius*.

AGARICUS CLAVICULARIS, *Fr.*

This species is quite variable with us. Three or four forms or varieties were found growing under balsam trees in one locality in Caroga. Var. *albus* is wholly white. Var. *cinereus* has the pileus and stem pale cinereus; this is the most common. Var. *filipes* has the pileus small, two or three lines broad, and the stem very slender or filiform. When moist the stem is viscid, and in taking it from its place of growth the fingers are liable to slip from their grasp before the plant yields from its attachment to the ground, but when dry it is taken without difficulty. The pileus is not viscid, and by this character the species may be distinguished from *A. vulgaris*.

AGARICUS LEAIANUS, *Berk.*

This beautiful Agaric is common in the woods of all our hilly or mountainous districts, growing most frequently on dead trunks of beech, but often on those of other deciduous trees. In a single instance it was found growing on decaying wood of hemlock.

AGARICUS FIBULA v. CONICUS.

This singular variety has the pileus conical, not umbilicate, sometimes papillate. Mossy prostrate trunks in woods. Caroga. July.

AGARICUS ATROCÆRULEUS, *Fr.*

I have not yet found the plant with blue colors. It is brownish with us and villose with grayish densely tufted hairs, sometimes inclining to a cervine hue. On poplars. Karner. Sept.

AGARICUS RHODOPOLIUS, *Fr.* v. UMBILICATUS.

Pileus convex, umbilicate, 1 to 2 inches broad; lamellæ subdecurrent; stem elongated, slender, containing a small cavity. Karner. Sept. A slender variety growing with the ordinary form, but appearing quite unlike it.

TROGIA CRISPA, *Fr.* v. VARIEGATA.

Pileus and lamellæ variegated with bluish or greenish-blue stains. Sandlake. Sept.

BOLETUS VISCOSUS, *Frost.*

This name is antedated by *B. viscosus* Ventur., and if the Frostian species is a good one, it will be necessary to give it another name. It cannot be called *B. Frostii*, as there is already a species bearing that designation. Mr. Frost's plant is manifestly very near *B. granulatus* and may possibly be a variety of that species, although the two, as they occur with us, are readily distinguishable. They appear to have been united by European mycologists. The distinguishing characters are found in the color, glutinosity, glandular dots or sugary granules of the tubes and stem and in the comparative length of the stem. In Frost's plant the pileus is at first dark-chestnut color and covered with a thick tough gluten, appearing, as the author remarks, as if it "was enveloped in slime," but it becomes yellowish, tawny-yellow or reddish-yellow and less glutinous with age. The glandular dots are usually entirely absent from the mouths of the tubes and from the stem, but when present they are very minute and inconspicuous and occur chiefly at the top of the stem. This is very short, varying from one-half to one inch in length, so that "the pileus seems to rest upon the ground." In *B. granulatus*, the young pileus is much paler, though variable in color, and is less glutinous. It does not become conspicuously paler with age and the glandular dots or granulations, which suggest the name of the species, are readily seen on the tube mouths and stem. They usually dot the stem from top to base, though sometimes they are more conspicuous on the upper part. The stem is generally one to two inches long. This plant appears from midsummer to the end of the season, but I have only seen Frost's plant in late autumn. It is quite possible that the two plants run together, but from the character of the differences noted it seems to me to be best at present to keep them distinct, and for convenience of reference I would designate the Frostian species as *Boletus brevipes*, in allusion to its short stem. It grows in sandy soil under pine trees. Karner. Oct.

BOLETUS SCABER, *Fr.* v. NIVEUS.

Swamps. Karner. Oct. This is a beautiful variety, easily recognized by the white color of the pileus. This, however, becomes tinged with livid-blue or greenish-blue when old.

BOLETUS GRACILIS, *Pk.* v. LÆVIPES.

Stem destitute of reticulations. Otherwise like the typical form of the species. South Ballston. Sept.

POLYPORUS SULPHUREUS, *Fr.*

The young growing plant sometimes exudes a pale-yellow or sulphur-colored juice when cut or broken.

POLYPORUS VOLVATUS, *Pk.*

This is occasionally found on balsam trunks, *Abies balsamea*. Adirondack mountains. June.

POLYPORUS CONGLOMERATUS, *Pk.*

Prostrate trunks of beech. Osceola. Aug.

LYCOPERDON GIGANTEUM, *Batsch.*

A specimen of the obconic form mentioned by Fries was found near Coeymans, Albany county, by Mr. *John D. Parsons.*

MORTHIERA MESPILI, *Fckl.*

Living leaves of *Amelanchier Canadensis.* Caroga. July.

PUCCINIA CALTHÆ, *Lk.*

This species, which is rare in our State, was found in a wooded swamp in Caroga. July.

UROCYSTIS POMPHOLYGODES, *Schl.*

On *Thalictrum anemonoides.* Albany. *G. W. Clinton.*

CYSTOPUS CUBICUS, *De By.*

Radical leaves of *Senecio aureus.* Adirondack mountains. June. This species inhabits various species of compositæ, but does not appear to have been before found on *Senecio.*

GLOMERULARIA CORNI, *Pk.*

Hitherto found only on *Cornus Canadensis*, but now on *Lonicera ciliata* also. Adirondack mountains. June.

LOPHIOTREMA SPIRÆÆ, *Sacc.* v. ADULTUM.

This has the spores nine to eleven-septate. In the type they are seven-septate. West Albany. Apr.

DIAPORTHE SPICULOSA, *Nits.*

A form occurs on dead branches of *Spiræa opulifolia* without a limiting black line in the matrix. The perithecia are sunk in the wood, the surface of which becomes blackened.

HYPODERMA NERVISEQUUM, *Fr.*

Fertile specimens were found on balsam leaves in Caroga. July.

LOPHODERMIIUM PETIOLICOLUM, *Fckl.* v. ACERINUM.

Perithecia narrowly elliptical or oblong; asci subclavate, .0025 to .003 in long, .0008 to .00035 broad; spores filiform, considerably shorter than the ascus. Fallen petioles of *Acer saccharinum.* Caroga. July.

E.

NEW YORK SPECIES OF LACTARIUS.

LACTARIUS, *Fr.*

[Galorrheus, *Fr.* Lactifluus, *Hoffm.*]

Hymenophorum fleshy, vesiculose, continuous with the fleshy stem; lamellæ unequal, adnate or decurrent, acute on the edge, exuding a milky or colored juice when wounded; volva and annulus none; spores globose or broadly elliptical, white or yellowish.

The peculiar character of this genus, and one which gives to it its name, is the milky juice which pervades the flesh and especially the lamellæ of the species. It is generally white, like milk, but in some species it quickly changes color on exposure to the air, and in a few it is always colored. In some instances it is colorless or watery, but such plants are regarded by Fries as degenerate or abnormal from growing in very wet places. In very old specimens, or in very dry weather, the milk is often more scant than usual, and it sometimes fails entirely. Its presence may generally be ascertained by cutting or breaking the pileus or the lamellæ. It is better to seek it in the latter, inasmuch as it generally flows more freely from them, especially in small species, than from the pileus and stem. In some species of *Mycena* a similar milky or colored juice exists, especially in the stem, but these are abundantly distinct from the *Lactarii* by their small size, campanulate pileus and slender, hollow, cartilaginous stem. In the genus *Russula* the size, shape and texture of the species is the same as in *Lactarius*, but the milky juice is wanting, though the acrid taste may be present, so that the presence of the milk and the fleshy stem is sufficient to distinguish these plants from all other *Agaricini*.

The pileus is fleshy in all the species, but in some it is thin. Even when thick and compact its texture is brittle, so that it is easily broken. It is variegated in many species by more highly-colored concentric bands or zones, a character always wanting in the allied species of *Russula*. The margin of the pileus is at first inflexed or involute, and the pileus itself more or less convex, but with advancing age the margin becomes spreading or elevated, and then the pileus, being depressed in the center, presents an obconic or funnel shape. Sometimes the pileus is convex, but umbilicate or centrally depressed with its earliest appearance, in other instances it is broadly convex or nearly plane, and furnished with a small umbo or papilla.

The lamellæ are at first adnate, but by the change in the shape of the pileus, which comes from its expansion and the elevation of the margin, they become more or less decurrent. It is not uncommon to find them branched or forked, especially near the inner extremity. In color they are generally white or whitish, but this is often varied by yellowish or reddish tints as they become mature. They often change color where cut or bruised, even when the milk remains unchangeable. In some species they become pruinose or dusted by the spores when old, in others they remain naked.

The stem in many species is short and comparatively thick, in others its length equals or exceeds the diameter of the pileus. It may be equal in diameter throughout its entire length, or become gradually narrower either toward the apex or toward the base. In some species it is always solid or merely becomes spongy within when old, in others it may be either spongy within or hollow, and that too in different individuals of the same species. When it is stuffed in the young plant it is likely to be hollow in the old. In many of the species individuals sometimes occur in which it is eccentric.

The spores are globose or broadly elliptical, and more or less rough or echinulate, and they vary but little in size in the different species. Still by their slight variations in size and color they sometimes afford good specific characters, and should by no means be neglected in the study of the species.

The taste of the milk and flesh in many species is very acrid, or hot and biting like that of Cayenne pepper; in others it is mild or but tardily and slightly acrid. This character is of great utility in distinguishing the species, and it is necessary to observe it by actually tasting, but not swallowing the milk or flesh, if we would satisfactorily identify our specimens.

Several of the species are edible, others are affirmed by authors to be poisonous. In some instances authors do not agree in respect to the quality of the species, for while one affirms, for example, that *L. insulsus* and *L. piperatus* are edible, another declares them to be poisonous. It is most prudent to avoid the use of such acrid species, for although their acidity is dispelled or destroyed by cooking, they are said by Gillet to be indigestible, and only acceptable to the strongest stomachs.

Most of the Lactarii grow on the ground, a few on decaying wood. They are found in deep woods and swamps and in grassy grounds and open places. They occur in Summer and Autumn, and are most abundant in warm, showery weather. The species have been arranged by Fries in groups, depending partly on the color and quality of the milk and partly on the naked or pruinose character of the lamellæ. This latter character does not appear to me to be sufficiently constant and obvious to be satisfactory. I have, therefore, made the color of the milk the only basis of the primary grouping of our species.

Synopsis of the Species.

	Milk at first bright-colored, unchangeable.....	1
	Milk at first white, changing color on exposure to the air.....	2
	Milk white or whitish, unchangeable.....	7
I	Young lamellæ and milk indigo-blue.....	Indigo.
I	Young lamellæ and milk dark-red.....	subpurpureus.
I	Young lamellæ and milk orange-red.....	deliciosus.
I	Young lamellæ and milk saffron-yellow.....	Chelidonium.
2	Milk becoming pinkish-red.....	3
2	Milk becoming yellow.....	4
2	Milk becoming lilac-color.....	uvidus.
3	Pileus dingy-gray or buff-gray (partly).....	fuliginosus.
3	Pileus dingy-brown (partly).....	lignyotus.
4	Margin of the mature pileus glabrous.....	5
4	Margin of the mature pileus tomentose-hairy.....	6
5	Pileus distinctly spotted, taste acrid.....	chrysorheus.
5	Pileus not distinctly spotted, taste tardily acrid.....	theiogalus.
6	Stem spotted.....	scrobiculatus.
6	Stem not spotted.....	cilicioides.
7	Pileus viscid when moist.....	8
7	Pileus not viscid.....	13
8	Margin of the pileus distinctly tomentose-hairy.....	torminosus.
8	Margin of the pileus glabrous or nearly so.....	9
9	Pileus greenish-brown or yellowish-brown, tinged with green..	sordidus.
9	Pileus some other color, glabrous and viscid.....	10
10	Pileus some shade of red or yellow.....	11
10	Pileus some other color.....	12

- 11 Pileus reddish, generally zoneless.....*hysginus*.
- 11 Pileus ochraceous, zoneless.....*affinis*.
- 11 Pileus yellow or yellowish-white, zonate.....*insulsus*.
 - 12 Stem paler than the pileus.....*trivialis*.
 - 12 Stem colored like the pileus.....*cinereus*.
- 13 Pileus minutely tomentose, pubescent or squamulose..... 14
- 13 Pileus glabrous or merely pruinose..... 21
 - 14 Pileus rugose-reticulated, velvety-pubescent.....*corrugis*.
 - 14 Pileus not rugose-reticulated..... 15
- 15 Pileus some shade of gray or brown..... 16
- 15 Pileus some shade of red or yellow..... 18
- 15 Pileus white or whitish..... 20
 - 16 Plant inodorous..... 17
 - 16 Plant odorous.....*glyciosmus*.
- 17 Pileus about one inch broad, becoming paler with age.....*griseus*.
- 17 Pileus more than one inch broad, not expallent (partly)...*plumbeus*.
 - 18 Lamellæ distant (partly).....*hygrophoroides*.
 - 18 Lamellæ close 19
- 19 Pileus less than two inches broad, milk white.....*alpinus*.
- 19 Pileus two inches or more broad, milk watery (or white).....*helvus*.
 - 20 Surface of the pileus persistently velvety-tomentose...*vellereus*.
 - 20 Margin of the pileus cottony-tomentose when young (partly)
deceptivus.
- 21 Pileus white or whitish..... 22
- 21 Pileus some other color 24
 - 22 Lamellæ distant or subdistant..... 23
 - 22 Lamellæ crowded, dichotomous*piperatus*.
- 23 Stem more than four lines thick, young pileus umbilicate (partly)
deceptivus.
- 23 Stem not more than four lines thick, pileus never umbilicate...*albidus*.
 - 24 Pileus some shade of gray or brown..... 25
 - 24 Pileus some shade of red or yellow..... 31
- 25 Wounds of the lamellæ becoming pinkish-red..... 26
- 25 Wounds of the lamellæ not becoming pinkish-red..... 27
 - 26 Pileus dingy-gray or buff-gray (partly).....*fuliginosus*.
 - 26 Pileus dingy-brown (partly).....*lignyotus*.
- 27 Wounds of the lamellæ becoming sordid-greenish..... 28
- 27 Wounds of the lamellæ not becoming sordid-greenish..... 29
 - 28 Plant growing on the ground.....*varius*.
 - 28 Plant growing on decaying wood*parvus*.
- 29 Taste mild.....*Gerardii*.
- 29 Taste acrid..... 30
 - 30 Pileus dry, zoneless (partly).....*plumbeus*.
 - 30 Pileus moist, generally zonate.....*pyrogalus*.
- 31 Lamellæ distant (partly).....*hygrophoroides*.
- 31 Lamellæ close or subdistant..... 32
 - 32 Taste acrid..... 33
 - 32 Taste mild or slightly acrid..... 34
- 33 Pileus bay-red, flesh pinkish.....*rufus*.
- 33 Pileus yellowish-red, flesh white.....*platyphyllus*.

- 34 Stem more than four lines thick.....volemus.
 34 Stem less than four lines thick..... 35
 35 Plant odorous.....camphoratus.
 35 Plant inodorous..... 36
 36 Pileus some shade of red, not becoming paler with age...subdulcis.
 36 Pileus brown or brownish, becoming paler with age...paludinellus.

*Milk at first bright-colored, unchangeable.**

This group corresponds to the tribe DAPETES of Fries. In Europe there are but two species belonging to it ; in our State there are four, one of which, *L. deliciosus*, is common to this country and Europe. There is much similarity in our species, their most obvious differences being in color. The pileus in all is glabrous, slightly viscid when moist, more or less zonate when young and moist, but becoming paler and less clearly zonate with age. The stem is hollow, at least when old, and often adorned with spots of the same color as the milk. The color of the milk pervades the whole plant, but it is less bright and clear except in the spots and the young lamellæ. Bruises or wounds of the lamellæ are apt to become greenish, and old plants are often stained with this hue. The spores in all are yellowish, and the taste is mild or slowly and moderately acrid. Probably all are edible, but only *L. deliciosus* has been tested.

Lactarius Indigo, Schw.

Blue Lactarius.

Pileus at first umbilicate with the margin involute, then depressed or infundibuliform, *indigo-blue with a silvery-gray lustre*, zonate, especially on the margin, sometimes spotted, becoming paler and less distinctly zonate with age or in drying ; lamellæ close, *indigo-blue*, becoming yellowish and sometimes greenish with age ; stem short, nearly equal, hollow, often spotted with blue, colored like the pileus ; spores subglobose, .0003 to .00035 in. long ; milk *dark blue*.

Pileus 2 to 5 inches broad, stem 1 to 2 inches long, 6 to 10 lines thick.

Dry places, especially under or near pine trees. Not rare but seldom abundant. July to September.

Lactarius subpurpureus, Peck.

Purplish Lactarius.

Pileus at first convex, then nearly plane or subinfundibuliform, more or less spotted and zonate when young and moist. *dark-red with a grayish lustre* ; lamellæ close, *dark-red*, becoming less clear and sometimes greenish-stained with age ; stem equal or slightly tapering upward, soon hollow, often spotted with red, colored like the pileus, sometimes hairy at the base ; spores subglobose, .00035 to .0004 in., milk *dark-red*.

Pileus 2 to 3 in. broad, stem 1.5 to 3 in. long, 3 to 5 lines thick.

Damp or mossy ground in woods and swamps. July and August.

At once known by the peculiar dark-red or purplish hue of the milk, which color also appears in the spots of the stem and in a more subdued tone in the whole plant. The color of the pileus lamellæ and stem is

* Badham says that the milk of *L. deliciosus* changes to a green color, but I have not observed such a change.

modified by grayish and yellowish hues. In age and dryness the zones are less clear, and dried specimens can scarcely be distinguished from *L. deliciosus*.

Lactarius deliciosus, Fr.

Delicious Lactarius.

Agaricus deliciosus L.

Pileus at first convex and subumbilicate, then nearly plane or subinfundibuliform, *yellowish-orange or grayish-orange* varied by brighter spots and zones, fading to grayish-yellow when old or dry; lamellæ close, *orange-colored* with paler reflections, less clear and often greenish-stained with age; stem nearly equal, stuffed or hollow, often spotted, colored like the pileus, sometimes hairy at the base; spores subglobose, .0003 to .0004 in.; milk *orange-colored*.

Pileus 2 to 5 in. broad, stem 2 to 4 in. long, 4 to 8 lines thick.

Woods and open places, but especially in mossy swamps. Common. July to September. Edible.

This is the most common species of its group. It grows both in wet and in dry places, and in acerose, frondose or mixed woods. It has an excellent reputation as an edible fungus. Badham says it is one of the best of fungi and that its flesh is firm, juicy, sapid and nutritious. One writer pronounces it the most delicious mushroom known. The best method of cooking is said to be, to bake three-fourths of an hour in a close covered dish, having seasoned it with pepper, salt and butter.

Badham states that the milk turns green on exposure to the air. Wounds of the flesh and lamellæ often do, but I have not observed this change in the color of the milk.

Lactarius Chelidonium, Peck.

Celandine Lactarius.

Pileus at first convex, then nearly plane and umbilicate or centrally depressed, *grayish-yellow or tawny*, at length varied with bluish and greenish stains, often with a few narrow zones on the margin, lamellæ narrow, close, sometimes forked, anastomosing or wavy at the base, *grayish-yellow*; stem short, subequal, hollow, colored like the pileus; spores globose, .0003 in.; milk sparse, *saffron-yellow*; taste mild.

Pileus 2 to 3 in. broad, stem 1 to 1.5 in. long, 4 to 6 lines thick.

Sandy soil, under or near pine trees. Saratoga and Bethlehem.

The milk of this species resembles in color the juice of celandine, *Chelidonium majus*. It is paler than that of *L. deliciosus*. By this character and by the dull color of the pileus, the narrow lamellæ, short stem and its fondness for dry situations, it may be separated from the other species. Wounds of the flesh are at first stained with the color of the milk, then with blue, finally with green. A saffron color is sometimes attributed to the milk of *L. deliciosus*, which may indicate that this species has been confused with that, or that the relationship of the two plants is a closer one than we have assigned to them.

Milk at first white, changing color on exposure to the air.

In this group, wounds of the lamellæ and flesh generally assume the changed color of the milk after a brief exposure to the air.

Lactarius uvidus, Fr.

Moist Lactarius.

Pileus at first convex, then nearly plane or centrally depressed, *glabrous, viscid*, whitish, grayish-brown or livid-brown, generally with a slight tinge of pink, sometimes obscurely zonate or marked with darker spots, either with or without a small umbo; lamellæ rather narrow, thin, close, white or yellowish, becoming *lilac where cut or bruised*; stem equal or slightly tapering upward, stuffed or hollow, glabrous, viscid, whitish or pallid; spores globose or broadly elliptical, *yellowish*, .00035 to .00045 in.; milk white, *changing to lilac*, taste acrid.

Var. *magnus*. Plant large, pileus obscurely zonate or marked with darker spots more or less concentrically arranged.

Pileus 1 to 2 in. broad, stem 1.5 to 3 in. long, 3 to 6 lines thick.

Wet mossy places in woods and swamps. Adirondack mountains and Sandlake. July and August.

This species is not very common. It is readily recognized by the lilac color assumed by the milk and the wounds of the flesh and lamellæ. The variety occurs in Vermont where it was observed by Mr. A. P. Morgan.

Lactarius chrysorheus, Fr.

Yellow-milk Lactarius.

Agaricus zonarius, Bolt.

Pileus convex, umbilicate or centrally depressed, becoming infundibuliform, glabrous, *yellowish*, sometimes tinged with flesh-color, *adorned with bright-colored zones and spots*, the margin at first involute and pruinose-tomentose; lamellæ thin, close, adnate or decurrent, yellowish, some of them forked; stem equal, glabrous, hollow, white or colored like the pileus, sometimes spotted; spores subglobose, .0003 to .00035 in.; milk white, *becoming yellow*, taste acrid.

Pileus 1 to 3 in. broad, stem 8 to 15 lines long, 3 to 5 lines thick.

Thin woods or open places. Bethlehem and Sandlake. July and August. Not common.

Fries describes this species as having a dry pileus, but in our specimens it appeared to be slightly viscid when moist. The milk in the European plant is said to change color quickly, in ours the change takes place slowly. The spots of the pileus are usually small and numerous and sometimes concentrically arranged. They, as well as the zones, have a golden-yellow or pale-orange hue. They, together with the color of the pileus, distinguish this species from the next, and the change in the color of the milk separates it from *L. insulsus*. The plant described in the Twenty-third Report under this name belongs to the next species.

Lactarius theiogalus, Fr.

Sulphur-milk Lactarius.

Agaricus theiogalus, Bull.

Pileus fleshy, thin, convex, then depressed, even, *glabrous*, viscid, *tawny-reddish*; lamellæ adnate or decurrent, close, pallid or reddish;

stem stuffed or hollow, even, colored like the pileus ; spores *yellowish, inclining to pale flesh-color*, subglobose, .0003 to .00035 in.; milk white, *changing to sulphur-yellow*, taste tardily acrid, bitterish.

Pileus 2 to 5 in. broad, stem 1 to 3 in. long, 4 to 10 lines thick.

Woods and groves. Common. July to October.

Our plant does not fully accord with the description of the species as given by Fries. The pileus is moderately thick and compact, varying from convex or nearly plane and umbilicate to depressed or infundibuliform, slightly viscid when moist, zoneless or obscurely zonate, varying in color from pale grayish-red to tawny-red or brick-red, there being a mixture of gray yellow and red not easily defined. Gillet describes the pileus as "tawny-red, clear brick-red, bistre-red or orange-yellow diversely shaded." It somewhat resembles *L. torminosus* in color, but the glabrous margin and changeable milk distinguish it. The surface of the pileus has a minutely uneven or unpolished appearance, but it is smooth to the touch. The lamellæ are sometimes forked near the stem, whitish tinged with creamy-yellow or flesh color, and they often become stained with reddish-brown when old or bruised. The stem is generally paler than the pileus. It is commonly hollow, though sometimes stuffed or spongy within. Rarely it is spotted or stained with reddish-brown. When the flesh is cut or broken it soon assumes the pale-yellow color of the exposed milk. The taste is tardily or moderately acrid, or somewhat woody and bitterish. Its less acrid taste, unspotted and more reddish pileus, distinguish it from the preceding species. According to Gillet it is pronounced edible by some authors, poisonous by others. Cordier says that the pileus is dry, that the stem is almost always stuffed, and that it passes for poisonous, but that Letellier has eaten it more than once without inconvenience.

Lactarius resimus, Fr.

Recurved Lactarius.

Pileus convex and umbilicate, then infundibuliform, even, glabrous, viscid, zoneless, *whitish or pallid*, the margin at first *involute, white-tomentose*, at length spreading, naked ; lamellæ decurrent, whitish ; stem even or obsoletely spotted, villose, hollow, thick ; milk *quickly changing to sulphur-yellow*, taste acrid

Var. *regalis*. (*L. regalis*, Peck.) Pileus yellowish-white, the margin glabrous ; stem glabrous ; spores globose, .0003 in.

Pileus 4 to 6 in. broad, stem 2 to 3 in long, 8 to 12 lines thick.

Woods. Croghan. September. Rare.

Our plant, which has been observed but once, has the margin of the pileus and the stem glabrous, but it can scarcely be more than a variety of the species, and as such we have subjoined it.

Lactarius scrobiculatus, Fr.

Spotted-stemmed Lactarius.

Agaricus scrobiculatus, Scop. *Agaricus theiogalus*, A. & S.

Pileus convex, then nearly plane or centrally depressed, viscid when moist, zoneless or slightly zonate, *reddish-yellow or subochraceous*, the margin at first involute, then spreading, *tomentose hairy* ; lamellæ thin,

close, adnate or slightly decurrent, whitish or yellowish; stem equal, stout, hollow, colored like the pileus, adorned by *suborbicular depressed spots of a brighter color*; spores *white*, .0003 to .00035 in.; milk white, *changing to sulphur-yellow*, taste acrid.

Pileus 3 to 6 in. broad, stem 1.5 to 3 in. long, 6 to 12 lines thick.

Wet, mossy ground in woods. Caroga. July. Rare.

This *Lactarius* is similar to the preceding in size and shape, and like that, it sometimes has the margin naked when old, but it is distinguished by its distinctly-spotted stem and more highly-colored pileus. Its color approaches that of *L. theiogalus*, but its generally hairy margin, together with its spotted stem and more acrid taste, will distinguish it from that species. It is not deemed edible.

Lactarius cilicioides, Fr.

Tomentose *Lactarius*.

Agaricus tomentosus, Otto. *Agaricus crinitus*, Schæff.

Pileus broadly convex or nearly plane, umbilicate or centrally depressed, occasionally subinfundibuliform, soft, *covered with long matted hairs or tomentum*, the center sometimes becoming naked with age, *zoneless*, viscid when moist, white reddish-buff or dingy-incarnate; lamellæ rather narrow, thin, close, adnate or slightly decurrent, some of them forked, white, or tinged with yellow or incarnate; stem short, equal or tapering downward, pruinose, stuffed or hollow, *not spotted*, white or whitish; spores *white*, .00025 to .0003 in.; milk white, sparse, slowly changing to pale yellow, taste acrid.

Var. *albus*. Pileus at first white, flesh white, stem short, milk very sparse or almost none.

Pileus 1.5 to 4 in. broad, stem .5 to 1.5 in. long, 3 to 6 lines thick.

Woods and open places, especially under or near pine trees. Forestburgh, Karner, West Albany and Greig. September and October.

The tomentose *Lactarius* is distinguished from all our other species by its conspicuously woolly pileus. It is this character that gives name to the plant. The hairs or fibrils are long and intricately matted, and so viscid in wet weather that fragments of leaves, sticks and dirt are often found adhering to them. The variety, which is found especially on sandy soil near pine trees, is white when young, but with age it is apt to become stained with a dirty-yellow or rusty-yellow hue, especially in the center. The milk is very sparse and sometimes wanting. The stem is so short that the pileus appears to rest on the ground. In the form which grows in woods the stem is longer, and the pileus approaches the next species in color. Fries describes the stem as two to three inches long and one inch thick, but I have seen no specimens with stems so large. The plant occurs in autumn, and sometimes several successive crops appear in the same locality in one season. It is sometimes subcæspitose.

Milk white or whitish, unchangeable.

* Pileus viscid when moist.

Lactarius torminosus, Fr.

Colic Lactarius. Woolly Lactarius.

Agaricus torminosus, Schæff. *A. necator*, Bull. *A. piperatus*, L.
A. barbatus, Retz.

Pileus convex, then depressed, viscid when young or moist, yellowish-red or pale-ochraceous tinged with red or flesh color, often varied with zones or spots, the at first involute *margin persistently tomentose-hairy*; lamellæ thin, close, narrow, whitish, often tinged with yellow or flesh color; stem equal or slightly tapering downward, hollow, sometimes spotted, whitish; spores subglobose or broadly elliptical, .00035 to .0004 in., milk white, taste acrid.

Pileus 2 to 4 in. broad, stem 1.5 to 3 in. long, 4 to 8 lines thick.

Woods. Adirondack mountains and Sandlake. August.

This species differs from all the preceding by its unchangeable milk, and from all the following by the coarse tomentum or hairs of the margin of the pileus. Badham says that it is acrid and poisonous, and Gillet declares it to be deleterious and even dangerous, and that in the raw state it is a very strong drastic purgative. On the other hand Cordier states that almost all authors agree in saying that it is eaten with impunity, and that Letellier has eaten it more than once without inconvenience.

Lactarius sordidus, Peck.

Pileus thick, firm, convex and centrally depressed, then nearly plane or subinfundibuliform, *subglabrous*, slightly viscid when moist, *soon dry, pale yellowish-brown, tinged with sordid green*, often darker in the center; lamellæ narrow, close, white or yellowish; stem short, firm, equal or slightly tapering upward, hollow, colored like the pileus, generally spotted; spores .0003 to .00035 in.; milk white, taste acrid.

Pileus 2 to 4 in. broad, stem 1 to 2 in. long, 4 to 8 lines thick.

Woods and open places, especially under spruce and balsam trees. Adirondack mountains and Sandlake. August and September.

This species appears to resemble *L. turpis* Fr. in color, but that species differs, according to the description of Fries, in having the margin of the pileus at first villose or tomentose, the stem stuffed, attenuated downward, not spotted, and the pileus covered with a tenacious gluten. Like it, our plant has a sordid, forbidding appearance. It sometimes appears to be adorned with a few obscure fibrils or to be slightly scabrous or hairy.

Lactarius trivialis, Fr.

Common Lactarius.

Pileus convex, then nearly plane, umbilicate or centrally depressed, glabrous, viscid, sometimes zonate, leaden-gray, livid-cinereous or pale brown, often with a pink or lilac tint, the thin inflexed margin at first with a grayish pruinosity; lamellæ rather narrow, close, thin, adnate, sometimes forked, whitish, becoming pallid or creamy-yellow, with *dingy-greenish stains where wounded*; stem equal or slightly tapering upward, long or short, glabrous, rarely spotted, hollow, whitish, often tinged with yellow or gray, *paler than the pileus*; spores *yellowish*, .0003 to .0004 in.; milk *whitish or pale cream color*, taste acrid.

Var. *maculatus* Pileus zonate or spotted and zonate, stem sometimes spotted.

Var. *gracilis*. Pileus small, 1 to 2 in. broad, stem equal to or longer than the diameter of the pileus, often tapering upward.

Pileus 1 to 6 in. broad, stem 1 to 5 in. long, 3 to 10 lines thick.

Woods and open places. Sandlake, Albany and Adirondack mountains. July to September.

A variable species. Some forms of our plant exhibit the characters attributed to the European fungus, others do not; but these forms all run together in such a way as to leave scarcely a doubt of their specific unity. I have therefore merely distinguished two of these forms as varieties. In all the forms the pileus is sometimes zonate, and in one it is spotted, though Fries describes the pileus as "azonate" and the stem as "immaculate." In the variety *maculatus* a zonate pileus and spotted stem are sometimes united in the same plant. This form occurred in low woods in Gansevoort. The plants were large and the stem long. The variety *gracilis* was found in woods in Greig, and is so small and slender that it appears like a distinct species, yet exhibits the essential specific characters. The thin pellicle of the pileus is separable and the whitish flesh has a dingy or grayish hue immediately beneath it. The plant is sometimes cæspitose.

Lactarius hyginus, Fr.

Reddish Lactarius.

Agaricus vietus, Krombh.

Pileus rigid, at first convex, then nearly plane, umbilicate or slightly depressed, even, viscid, zoneless or rarely obscurely zonate, *reddish-incarnate, tan-color or brownish-red*, becoming paler with age, the thin margin inflexed; lamellæ close, adnate or subdecurrent, whitish, becoming yellowish or cream colored; stem equal, glabrous, stuffed or hollow, colored like the pileus, or a little paler, sometimes spotted; spores subglobose, *whitish on black paper, yellowish on white paper*, .00035 to .0004 in.; milk white, taste acrid.

Pileus 2 to 3 in. broad, stem 1 to 2 in. long, 4 to 8 lines thick.

Woods. Sandlake and Caroga. July and August. Not common.

The reddish hue of the pileus distinguishes this species from its allies. The gluten or viscosity of the pileus in our specimens was rather tenacious and persistent.

Lactarius affinis, Peck.

Related Lactarius.

Pileus convex and centrally depressed, glabrous, viscid, *zoneless, ochraceous-yellow*; lamellæ rather broad, subdistant, whitish or creamy-yellow, some of them forked; stem equal, glabrous, stuffed or hollow, colored like the pileus, often spotted; spores .00035 to .00045 in.; milk white, taste acrid.

Pileus 2 to 4 in. broad, stem 1 to 2 in. long, 6 to 12 lines thick.

Pastures and copses. Catskill mountains. October. Rare.

I have observed this species but once. Mr. Morgan has found a stout form of it in Vermont. In his specimens the stem is conspicuously spotted, in the New York specimens sparingly. The species is

closely related to *L. insulsus*, but apparently distinct by its darker color, broader, looser lamellæ and zoneless pileus. It appears to be intermediate between that species and *L. hysginus*.

Lactarius insulsus, Fr.

Unsavory Lactarius.

Agaricus flexuosus, Secr.

Pileus convex and umbilicate, then infundibuliform, glabrous, viscid, *more or less zonate, yellowish*, the margin naked; lamellæ thin, close adnate or decurrent, some of them forked at the base, whitish or pallid; stem equal or slightly tapering downward, stuffed or hollow, whitish or yellowish, generally spotted; spores .0003 to .00035 in.; milk white, taste acrid.

Pileus 2 to 4 in. broad, stem 1 to 2 in. long, 4 to 6 lines thick.

Thin woods and open, grassy places. Greenbush and Sandlake. July and August.

Our plant has the pileus pale yellow or straw color, and sometimes nearly white, but European forms have been described as having it orange-yellow and brick-red. It is generally, though often obscurely, zonate. The zones are ordinarily more distinct near the margin, where they are occasionally very narrow and close. The milk in the Greenbush specimens had a thin, somewhat watery appearance. Authors differ in their estimate of its qualities, some affirming that it is edible, others that it is poisonous. It is classed as edible in the Curtis Catalogue, and Cordier says that it appears to be edible.

Lactarius cinereus, Peck.

Cinereous Lactarius.

Pileus thin, nearly plane and *umbilicate or subinfundibuliform*, glabrous, viscid, *pale gray or cinereous*, the disk sometimes darker colored; lamellæ narrow, close, white; stem equal or slightly tapering upward, stuffed, sometimes tomentose at the base, *colored like the pileus*; spores *white*, .00028 to .0003 in.; milk white, taste acrid.

Pileus 1 to 2 in. broad, stem 1 to 3 in. long, 3 to 4 lines thick.

Woods. Sandlake and Greig. August and September.

The species is evidently closely allied to *L. vietus* Fr., but I have never seen the pileus umbonate or expallent, nor the milk become gray, characters attributed to that species. In our plant the viscid pellicle is separable. In shape and size it resembles *L. trivialis* v. *gracilis*, but its paler usually umbilicate pileus, concolorous stem and white spores separate it. Mr. Morgan finds, in Vermont, a somewhat larger form with the pileus sometimes zonate.

** Pileus not viscid.

† *Pileus minutely tomentose or squamulose.*

Lactarius griseus, Peck.

Gray Lactarius.

Pileus thin, nearly plane, broadly umbilicate or centrally depressed, sometimes infundibuliform, generally with a small umbo or papilla,

minutely squamulose tomentose, gray or brownish-gray, becoming paler with age; lamellæ thin, close, adnate or slightly decurrent; whitish or yellowish; stem slender, equal or slightly tapering upward, rather fragile, stuffed or hollow, generally villose or tomentose at the base, paler than or colored like the pileus; spores .0003 to .00035 in.; milk white, taste subacid.

Pileus 6 to 18 lines broad, stem 1 to 2 in. long, 1 to 3 lines thick.

Woods and swamps on much decayed wood and mossy ground. Common. July to September.

The relationship of this species is with *L. mammosus* Fr., from which it differs in its lamellæ, which do not become ferruginous, and in its stem which is not pubescent, though it generally has long coarse tomentose hairs at its base. Its habitat also is peculiar, being much decayed mossy prostrate trunks or damp mossy vegetable mold in woods and swamps. It bears some resemblance to *L. cinereus* in form and color, but it is generally smaller, and easily distinguished by its dry tomentulose pileus.

Lactarius glyciosmus,

Fragrant Lactarius. Scented Lactarius.

Pileus thin, convex nearly plane or depressed, often with a small umbo or papilla, *minutely squamulose*, cinereous, grayish-brown or smoky-brown, sometimes tinged with pink, the margin even or slightly and distinctly striate; lamellæ narrow, close, adnate or decurrent, whitish or yellowish; stem equal, glabrous or obsoletely pubescent, stuffed, rarely hollow, whitish or colored like the pileus; spores .0003 to .00035 in.; milk white, taste acrid and unpleasant, sometimes bitterish, odor *aromatic*.

Pileus 6 to 18 lines broad, stem 6 to 18 lines long, 1 to 3 lines thick.

Woods and open places on the ground and on decaying wood Adirondack mountains, West Albany and Karner. September and October.

The distinctive characters of the species are its small size, squamulose pileus and agreeable odor. This is described by European authors as spirituous or like that of alcohol, but to me it resembles rather that of dry melilot and is not much unlike that of *L. camphoratus*. The American plant, so far as observed, does not have the red hues ascribed to the European.

Lactarius alpinus, Peck.

Alpine Lactarius.

Pileus thin, convex or nearly plane, sometimes centrally depressed, occasionally with a small umbo or papilla, tomentose or squamulose, *tawny-ochraceous*; lamellæ close, adnate or decurrent, yellowish; stem equal or slightly tapering upward, glabrous, solid or stuffed, paler than or colored like the pileus; spores .0003 to .00035 in.; milk *white*, taste acrid.

Pileus 8 to 18 lines broad, stem 12 to 18 lines long, 2 to 3 lines thick Summit of Haystack mountain and Karner. August. Rare.

Apparently allied to *L. helvus* Fr., but so much smaller that I can scarcely think it the same species and have for the present kept it distinct. The plants resemble *L. subdulcis* in size and somewhat in color,

but differ in their squamulose pileus. The specific name proves to be inappropriate, as the species has been found in a much lower region than that of its original discovery.

Lactarius helvus, Fr.

Pale-red Lactarius.

Pileus fleshy, *fragile*, convex, then plane or depressed, subumbonate, dry, *silky or floccose-squamulose* and rivulose, *pale-testaceous*, becoming paler; lamellæ decurrent, thin, close, whitish-ochraceous; stem stuffed or hollow, *pruinose-pubescent*; milk sparse, subacid, white.

Var. *aquifluus*. *L. aquifluus* Peck. Milk sparse, *watery*, taste mild or subacid, spores .0003 to .00035 in.; odor weak in the fresh plant, more decided in the dried specimens, aromatic and agreeable.

Pileus 2 to 6 in. broad, stem 3 to 6 in. long, 4 to 10 lines thick.

Mossy ground in swamps and marshes. Adirondack mountains, Sandlake and Karner. July and August.

Our specimens agree so closely with the description of *L. helvus*, as given by Fries, and of which a translation is here given, that we have referred them to that species, distinguishing them merely as a variety on account of the watery milk. Fries regards such a milk as belonging to a degenerate or abnormal state of the species, and the result of too much moisture. But unless *L. alpinus*, shall prove to be a dwarf form of *L. helvus*, only this form of the species has been detected within our limits and indeed in this country. It scarcely seems probable that a species would occur constantly and repeatedly, in various widely separated localities, in a degenerate condition only. It would seem probable that occasionally, in a dry time or in a more dry locality, it would revert to its normal condition. But this has not yet been observed to happen in our plant, therefore we have preferred to consider it a variety. The milk sometimes presents a slightly turbid appearance, less clear than water. The pileus becomes quite fragile when old, and the thin margin is then spreading and sometimes flexuous. The color is a grayish-red or pale tawny-red. The stem is nearly equal, but in young plants it is often narrowed toward the apex. It is glabrous or pruinose and soon hollow, often a little paler than the pileus and slightly striate at the apex from the decurrent lamellæ. The flesh is tinged with pink or a pale pinkish-gray. The plant is sometimes cæspitose.

Lactarius vellerius, Fr.

Fleecy Lactarius.

Agaricus Listeri Sow. *A. piperatus* Poll.

Pileus compact, at first convex and umbilicate, then expanded and centrally depressed or subinfundibuliform, the *whole surface minutely velvety-tomentose, soft to the touch*, white or whitish, the margin at first involute, then reflexed; lamellæ *distant or subdistant*, adnate or decurrent, sometimes forked, whitish becoming yellowish or cream-colored; stem firm, solid, equal or tapering downward, *pruinose-pubescent*, white; spores white, *nearly smooth*, .0003 to .00035 in.; milk white, taste acrid.

Pileus 2 to 5 in. broad, stem .5 to 2 in. long, 6 to 16 lines thick.

Woods and open places. Common. July to September.

The soft downy tomentum which is characteristic of this species and which covers the whole pileus gives it a pruinose appearance when viewed from a little distance. The stem is generally short and is sometimes broader than long. The lamellæ vary in width from two to four lines and are generally about equal in width to the thickness of the pileus. They become stained where bruised. The milk, which is sometimes quite abundant in wet weather, exudes from wounds and dries into cream-colored gummy granules. The taste is very acrid. Cordier states that it is poisonous according to some authors, edible according to Leveille.

Lactarius deceptivus, Peck.

Deceptive Lactarius.

Pileus compact, at first convex and umbilicate, then expanded and centrally depressed or subinfundibuliform, *obsoletely tomentose or glabrous* except on the margin, white or whitish, often varied with yellowish or sordid stains, the margin at first involute and *clothed with a dense, soft or cottony tomentum*, then spreading or elevated and more or less fibrillose; lamellæ rather broad, distant or subdistant, adnate or decurrent, some of them forked, whitish, becoming cream colored; stem equal or narrowed downward, solid, pruinose-pubescent, white; spores white, .00035 to .0005 in.; milk white, taste acrid.

Pileus 3 to 5 in. broad, stem 1 to 3 in. long, 8 to 18 lines thick.

Woods and open places, especially under hemlock trees. Common. July to September.

This plant appears to have been confused with *L. vellereus*, which it closely resembles, but from which it appears to me to be quite distinct, both in the character of the tomentum of the pileus and in its decidedly larger and rougher spores. The young pileus is clothed with a thin, silky tomentum, which, on the involute margin, is quite thick, but very soft and cottony, and sometimes striated with parallel impressions, produced by previous pressure against the edges of the lamellæ. In the mature plant the pileus appears nearly or quite glabrous, or is merely shaggy fibrillose on the margin. Sometimes the cuticle seems to be slightly rimose, and the surface then has a kind of scaly appearance. The lamellæ are as broad and distant as in *L. vellereus*, but the stem is generally a little longer in the present species than it is in that. The glabrous form of this species was referred to *L. piperatus* in the Twenty-third Report. An experiment of its edible qualities was made without any evil consequences. The acidity was destroyed by cooking.

†† *Pileus glabrous or merely pruinose or pruinose-pubescent, not squamulose.*

Lactarius piperatus, Fr.

Peppery Lactarius.

Agaricus piperatus, Scop. *A. acris*, Bull. *A. Listeri*, Krombh.

Pileus compact, at first convex and umbilicate, then expanded and centrally depressed or infundibuliform, even, *glabrous*, white; lamellæ *narrow, crowded, dichotomous*, adnate or decurrent, white or cream colored; stem equal or slightly tapering downward, solid, glabrous,

white ; spores white, nearly smooth, .00025 to .0003 in.; milk white, abundant, taste very acrid.

Pileus 1.5 to 4 in. broad, stem .5 to 2 in. long, 5 to 10 lines thick.

Thin woods, pastures and grassy places. Common. July to September.

The glabrous or sometimes merely pruinose pileus, the crowded and frequently forked narrow lamellæ separate this species from the other white ones. The lamellæ are one to two lines broad, their width being less than the thickness of the flesh of the pileus. The stem is either very short or quite long, according to the place of growth, it being longer when growing in woods among fallen leaves than when growing in open grassy places. In the summer of 1883 this and the two preceding species were abundant in the town of Sandlake, and all grew in the same locality. By a little practice they were readily distinguishable, even without a close inspection.

Most authors agree in attributing edible qualities to this species, notwithstanding its intense acidity. Badham says that he has frequently eaten it, and that according to Berkeley it is preserved for winter use by pickling in salt and vinegar. Cordier says that it is an agreeable aliment and is eaten in many countries, and that cows eat it with avidity, but that it renders their milk and butter nauseous. Fries says it is edible, and it is so classed in Curtis' Catalogue. Gillet states that although it does not constitute an agreeable article of food, it is eaten in some parts of France, and that the Russians make frequent use of it.

Lactarius albidus, Peck.

White Lactarius.

Pileus *thin*, plane or slightly depressed, glabrous, dry, white ; lamellæ *subdistant*, adnate or slightly decurrent, white, the *interspaces venose* ; stem equal, solid, glabrous, white ; spores white, .0003 to .00035 in.; milk white, taste acrid.

Pileus 1.5 to 3 in. broad, stem 1 to 2 in. long, 3 to 5 lines thick.

Thin woods. Karner. September. Very rare.

This Lactarius has been observed but once, and then but few specimens were seen, yet it appears to be distinct from all our other white species in its thin pileus, subdistant lamellæ, venose interspaces and rather slender stem. Except in color, it has some similarity to the next species.

Lactarius varius, n. sp.

Variable Lactarius.

Pileus thin, convex or nearly plane, umbilicate or centrally depressed, sometimes with a minute umbo or papilla, *glabrous*, even or obscurely roughened, submoist, zoneless or rarely narrowly zonate on the margin, *gray or brown, often tinged with lilac*, lamellæ close, adnate or subdecurrent, whitish or cream colored, becoming dingy-greenish where wounded ; stem equal, elastic, glabrous, solid or spongy within, paler than or colored like the pileus ; spores white, .0003 to .00035 in.; milk white, taste tardily acrid, *odor none*, flesh white.

Pileus 1 to 2.5 in. broad, stem 1 to 2.5 in. long, 2 to 4 lines thick.

Thin woods and moist places. West Albany and Karner. September.

A very variable species. The prevailing color of the pileus is gray or lead-gray, but it is often lilac-brown. Its surface has a moist and shining appearance, but it is sometimes seen under a lens to be roughened by minute pits or depressions, in which case it presents silvery or sparkling reflections as if micaceously atomate. It often grows with *L. glyciosmus* from which it is distinguished by its glabrous pileus and lack of odor. It also approaches *L. plumbeus*, but differs from it in its smaller size, paler color, moist appearance and larger spores. Wounds of the lamellæ assume a hue similar to that seen under similar circumstances in *L. trivialis*.

Lactarius parvus, Peck.

Small Lactarius.

Pileus nearly plane or depressed, *even*, glabrous, *zoneless*, reddish-brown or lilac-brown, *becoming paler with age*, lamellæ narrow, crowded, white or yellowish, becoming dingy-greenish where wounded; stem equal or slightly tapering upward, often curved, stuffed, whitish; spores globose, white, .0003 to .0004 in.; milk white, taste acrid.

Pileus 6 to 12 lines broad, stem 6 to 12 lines long, 1 to 2 thick.

Old stumps and prostrate trunks in woods. Sandlake, Osceola and Greig. August and September.

This small species is closely allied to *L. varius*, of which it might be considered a mere variety. It differs in being smaller, in having the pileus constantly even, zoneless, destitute of an umbo or central papilla and in growing paler with age. I have only found it growing on decaying wood. When growing on the sides of stumps and prostrate trunks, the stem is often curved and sometimes eccentric.

Lactarius plumbeus, Fr.

Lead-colored Lactarius.

Agaricus plumbeus, Bull.

"Pileus compact, convex, then infundibuliform, dry, unpolished *fuliginous or brownish-black*; lamellæ crowded, white or yellowish; stem solid, equal, thick; milk white, acrid, *unchangeable*," spores .00025 to .0003 in.

Pileus 2 to 5 in. broad, stem 1.5 to 3 in. long, 3 to 6 lines thick.

The specimens which I have referred to this species were found in the Catskill mountains several years ago, growing in hemlock woods, under spruce and balsam trees. I have not met with the species since. The pileus in the larger specimens had a minutely tomentose appearance, but in the dried specimens this has disappeared. They also varied in color from blackish-brown to pinkish-brown and grayish-brown, but they can scarcely be more than a mere form or variety of the species the description of which, as given by Fries, I have quoted. In the Handbook the pileus is described as dark fuliginous gray or brown, and Gillet describes it as black-brown, dark fuliginous or lead-color, and adds that the plant is poisonous and the milk very acrid and burning. Cor dier says that the flesh is white and the taste bitter and disagreeable.

Lactarius pyrogalus, Fr.

Caustic Lactarius.

Agaricus pyrogalus, Bull. *A. rusticanus*, Scop.

Pileus broadly convex, plane or slightly depressed, sometimes umbilicate, glabrous, even, *submoist*, *generally zonate*, livid-cinereous, grayish-brown or lilac-brown; lamellæ thin, *distant or subdistant*, adnate or subdecurrent, *yellowish*; stem equal or slightly tapering downward, glabrous, stuffed or hollow, paler than or colored like the pileus; spores globose, *yellowish*, .0003 to .00035 in.; milk white, taste acrid.

Pileus 1.5 to 2.5 in. broad, stem 1 to 1.5 in. long, 2 to 4 lines thick.

Thin woods and open places. Sandlake, Greenbush and Karner. August to October.

The zonate pileus, distant lamellæ and yellowish spores separate this species from its allies. The milk is copious and very acrid and the species is regarded as poisonous. Cordier states that the milk is mild in young plants, acrid in mature ones.

Lactarius fuliginosus, Fr.

Dingy Lactarius.

Agaricus azonites, Bull. *A. plinthogalus*, Otto. *L. fumosus*, Pk.

Pileus firm becoming soft, convex plane or slightly depressed, even, *dry*, zoneless, *dingy-cinereous or buff-gray*, appearing as if covered with a dingy pruinosity, the margin sometimes wavy or lobed; lamellæ adnate or subdecurrent, subdistant, whitish, then yellowish, becoming *stained with pink-red or salmon color where wounded*; stem equal or slightly tapering downwards, firm, stuffed, colored like the pileus; spores globose, *yellowish*, .0003 to .0004 in.; milk white, taste tardily and sometimes slightly acrid.

Pileus 1 to 2.5 in. broad, stem 1 to 2 in. long, 3 to 5 lines thick.

Thin woods and open grassy places. Greenbush and Sandlake. July and August.

The pileus, in this species, has a peculiar dingy or smoky hue which is suggestive of the specific name. The color is a pale-cinereous or yellowish-gray compared by some authors to the color of coffee and milk. This and the yellowish color of the spores, the tardily acrid taste and the pinkish hue of the wounds of the lamellæ and flesh characterize the species. Both Fries and Gillet state that the milk, as well as wounds of the flesh, changes to a pinkish or saffron hue on exposure to the air. This would transfer the place of the species to our second group, for which we have made provision in the synoptical table. But we have failed to verify this character in our plant, and consequently it was formerly supposed to be distinct from the European, and was published under the name *Lactarius fumosus*. But inasmuch as the European plant has also been described as having white unchangeable milk, and since our plant agrees in every other respect with the description given by Fries, it is quite probable that the species may vary in this respect and we have therefore referred our plant to it. Cordier states that according to Barla and Reveil this species is poisonous.

Lactarius lignyotus, Fr.

Sooty Lactarius.

Pileus broadly convex plane or slightly depressed, dry, with or without a small umbo, generally rugose-wrinkled, *dark-brown, appearing subpulverulent or as if suffused with a dingy pruinosity*, the margin sometimes crenately lobed and distinctly plicate; lamellæ moderately close or subdistant, adnate, white or yellowish, *slowly changing to pinkish-red or salmon color where wounded*; stem equal or abruptly narrowed at the apex, even, glabrous, stuffed, colored like the pileus, sometimes plicate at the top; spores globose, *yellowish*, .00035 to .00045 in.; milk white, taste mild or tardily and slightly acrid.

Var. *tenuipes*. Pileus about 1 inch broad, stem slender, 2 to 3 in. long and about two lines thick.

Pileus 1 to 4 in. broad, stem 1 to 3 in. long, 2 to 6 lines thick.

Wet or mossy ground in woods and swamps. Adirondack mountains and Sandlake. July and August. Not rare in hilly and mountainous districts.

The sooty Lactarius is closely related to the preceding species with which it was formly united by Fries as a variety, but from which it may be distinguished by its larger size, darker color and generally rugose-wrinkled pileus. Wounds of the flesh and lamellæ slowly change color as in that species, and, according to the description given by Fries, the milk also undergoes a similar change, but I have not been able to verify this in the American plant. According to the description of *L. subtomentosus*, B. & R., the milk in that plant changes from white to yellowish and the taste is acrid. In the Twenty-third Report our plant was erroneously referred to that species.

Lactarius Gerardii, Peck.

Gerard's Lactarius.

Pileus broadly convex plane or slightly depressed, dry, generally rugose-wrinkled, with or without a small umbo or papilla, *dingy-brown*, the thin spreading margin sometimes flexuous lobed or irregular; lamellæ *distant*, adnate or decurrent, *white or whitish*, the interspaces generally uneven; stem subequal, stuffed or hollow, colored like the pileus; spores globose, *white*, .00035 to .00045 in.; milk white, *unchangeable*, taste *mild*.

Pileus 1.5 to 4 in. broad, stem 1 to 2 in. long, 3 to 6 lines thick.

Woods and open places. Poughkeepsie. *W. R. Gerard*. Greenbush, Sandlake and Croghan. July to September.

This Lactarius closely resembles the sooty Lactarius in color, but differs from it in its more distant lamellæ, white spores and constantly mild taste. Wounds of the flesh and lamellæ do not become pinkish-red as in that plant. From the next species its darker color, hollow stem and more globose rougher spores separate it.

Lactarius hygrophoroides, B. & C.

Hygrophorus-like Lactarius. Distant-gilled Lactarius.

Lactarius distans, Pk.

Pileus firm, convex or nearly plane, umbilicate or slightly depressed, rarely infundibuliform, glabrous or sometimes with a minute velvety

pubescence or tomentum, dry, sometimes rugose-wrinkled and often becoming rimose-areolate, *yellowish-tawny or brownish-orange*; lamellæ *distant*, adnate or subdecurrent, white or cream-color, the interspaces uneven or venose; stem short, equal or tapering downward, *solid*, glabrous or merely pruinose, colored like the pileus; spores subglobose or broadly elliptical, *nearly smooth*, .00035 to .00045 in.; milk white, taste mild.

Pileus 1 to 4 in. broad, stem .5 to 1 in. long, 4 to 8 lines thick.

Grassy ground and borders of woods. Albany, Greenbush and Sand-lake. July and August.

This plant has almost exactly the color of *L. volemus*, but differs from it in its distant lamellæ, short stem, less copious milk and less globose spores. Its flesh is white, with a thickness about equal to the breadth of the lamellæ. It is probably edible, but has not yet been tested. The typical *L. hygrophoroides* is described as having the pileus yellowish-red and pulverulent, and the lamellæ luteous. It is also represented as a small plant; but our specimens, while not fully agreeing with this description, approach so closely to it in some of their forms that they doubtless belong to the same species. We have therefore extended the description so that it may include our plant. In wet weather the pileus sometimes becomes funnel-form by the elevation of the margin.

Lactarius volemus, Fr.

Orange Lactarius. Orange-brown Lactarius.

Agaricus testaceus, A. & S. *A. ruber*, Secr.

Pileus firm, convex nearly plane or centrally depressed, rarely infundibuliform, sometimes with a small umbo, generally even, *glabrous*, dry, *golden-tawny or brownish-orange*, sometimes darker in the center, often becoming rimose-areolate; lamellæ *close*, adnate or subdecurrent, white or yellowish, becoming sordid or brownish where bruised or wounded; stem subequal, variable in length, firm, solid, glabrous or merely pruinose, colored like the pileus, sometimes a little paler; spores *globose*, white, .00035 to .00045 in.; milk *copious*, white, taste acrid.

Var. *subrugosus*. Pileus rugose-reticulated on the margin.

Pileus 2 to 5 in. broad, stem 1 to 4 in. long, 4 to 10 lines thick.

Thin woods and open places. Common. July to September. Edible.

The color of the pileus is a peculiar mixture of red and yellow, sometimes shaded with brown. It is generally free from the attacks of insects, and this, with its beautiful and nearly uniform color, makes it an attractive species. It is nearly as celebrated as *L. deliciosus* for its edible qualities. Cordier says "it is one of the most agreeable fungi to eat." Its flesh is firm but brittle, white or yellowish. Its milk is very abundant and its taste mild or slightly astringent. In drying, the specimens sometimes emit a disagreeable odor. We have followed Fries and other continental mycologists in writing the specific name "*volemus*." Some English authors have it "*volemum*." The variety connects this species with the next.

Lactarius corrugis, Peck.

Corrugated Lactarius.

Pileus firm, convex, then nearly plane or centrally depressed, *rugose reticulated*, covered with a *velvety pruinosity or pubescence*, *dark*

reddish-brown or chestnut color, fading with age to tawny-brown; lamellæ close, dark cream color or subcinnamon, *becoming paler* when old, sordid or brownish where bruised or wounded, stem equal, solid, glabrous or merely pruinose, paler than but similar in color to the pileus; spores subglobose, .0004 to .0005 in., milk copious, white, taste mild.

Pileus 3 to 5 in. broad, stem 3 to 5 in. long, 6 to 12 lines thick.

Thin woods. Sandlake, Gansevoort and Brewerton. August and September.

This curious Lactarius is related to *L. volemus*, from which it may be separated by its darker colors and its corrugated pileus. The flexuous reticulated rugæ present an appearance similar to that of the hymenium of a Merulius. The pileus is everywhere pruinose-pubescent and the lamellæ bear numerous spine-like or acicular cystidia or spicules, .0016 to .002 in. long. These are so numerous on and near the edges of the lamellæ that they give them a pubescent appearance.

Lactarius platyphyllus, Peck.

Broad-gilled Lactarius.

Pileus depressed or subinfundibuliform, glabrous, zoneless, *yellowish-incarnate or yellowish-red*, the decurved or spreading margin sometimes wavy or flexuous; lamellæ *broad*, subdistant, yellowish; stem equal, stout, *hollow*, paler than or colored like the pileus; spores subglobose or broadly elliptical, .00035 to .00045 in.; milk white, taste acrid.

Pileus 4 to 8 in. broad, stem 3 to 5 in. long, 6 to 12 lines thick. Woods. North Elba. August.

This large species is apparently very rare. It has been observed but once, and then in dry weather, so that it was not positively ascertained whether the pileus may not be viscid when moist. Its real position is, therefore, uncertain. The lamellæ are four or five lines broad and the flesh is white or whitish.

Lactarius rufus, Fr.

Red Lactarius.

Agaricus rufus, Scop.

Pileus convex and centrally depressed, then infundibuliform, generally with a small umbo, glabrous, sometimes slightly floccose or pubescent when young, especially on the margin, zoneless, *bay-red or brownish-red*, shining; lamellæ narrow or moderately broad, sometimes forked, close, subdecurrent, yellowish or reddish; stem nearly equal, firm, stuffed, paler than or colored like the pileus; spores white, .0003 to .0004 in.; milk white, taste very acrid.

Pileus 2 to 4 in. broad, stem 2 to 4 in. long, 3 to 5 lines thick.

Low woods and swamps. North Elba. August. Rare.

The red Lactarius is known by its rather large size, dark-red pileus and intensely acrid taste. It has been found but once in our State. The flesh is pinkish and the stem sometimes pruinose. It is designated by authors as very poisonous and extremely poisonous. Cordier even says that worms never attack it.

Lactarius camphoratus, Fr.

Camphor Lactarius.

Agaricus camphoratus, Bull.

Pileus thin, convex, then nearly plane or depressed, generally with a small umbo or papilla, glabrous, *bay-red or brownish-red*, sometimes zonate, the spreading margin occasionally wavy or flexuous; lamellæ narrow, thin, close, yellowish or dull reddish; stem subequal, glabrous, stuffed or hollow, colored like the pileus; spores globose, white, .0003 to .00035 in.; milk white, taste *mild*, odor *agreeable, aromatic*.

Pileus .5 to 1.5 in. broad, stem 1 to 2 in. long, 2 to 3 lines thick.

Swamps and wet places, also in woods. Sandlake and Adirondack mountains. July to September.

This plant resembles the preceding species in color, but it differs from it decidedly in size and in taste. The European plant is described as subzonate, but I have seen no zonate specimens. The color of the lamellæ, when old, resembles that of the pileus, though they are paler. The odor is not like that of camphor, as the name would seem to imply. To me it resembles that of dried *Cyperus inflexus* or dried melilot. It is often weak in the fresh plant, but becomes more distinct in the dried specimens, which retain it a long time. Gillet gives the species as edible.

Lactarius subdulcis, Fr.

Sweet Lactarius. Sweetish Lactarius.

Agaricus subdulcis, Bull.

Pileus thin, convex, then plane or subinfundibuliform, with or without a small umbo or papilla, glabrous, even, zoneless, moist or dry, tawny-red, cinnamon-red or brownish-red, the margin sometimes wavy or flexuous; lamellæ rather narrow, thin, close, whitish, sometimes tinged with red; stem equal or slightly tapering upward, slender, glabrous, sometimes villous at the base, stuffed or hollow, paler than or colored like the pileus; spores globose, white, .0003 to .00035 in.; milk white, taste mild or tardily and slightly acrid, sometimes woody or bitterish and unpleasant, flesh whitish, pinkish or reddish-gray, odor *none*.

Pileus .5 to 2 in. broad, stem 1 to 2.5 in. long 1 to 3 lines thick.

Fields, copses, woods, swamps and wet places. July to October. Very common.

This species grows in almost every variety of soil and locality. It may be found in showery weather on dry, rocky soil, on bare ground or among mosses or fallen leaves. In drier weather it is still plentiful in swamps and wet, shaded places, and in sphagnous marshes. It sometimes grows on decaying wood. It is also as variable as it is common. Gillet has described the following varieties.

Var. *cinnamomeus*. Pileus cinnamon-red, subshining; stem stuffed, then hollow; taste mild, becoming slightly acrid or bitter.

Var. *rufus*. Pileus dull chestnut-red, becoming more concave; stem spongy; taste mild.

Var. *badius*. Pileus bay-red, shining as if varnished, with an obtuse disk and an inflexed, elegantly crenulate margin, stem very glabrous, hollow.

The first and second varieties have occurred within our limits. The first also has the stem elastic and furnished with a whitish or grayish tomentum or strigose villosity at the base, when growing among moss in swamps. A form occurred in Sandlake, in which some of the specimens were proliferous. The umbo had developed into a minute pileus. With us the prevailing color of the pileus is yellowish-red or cinnamon-red. Sometimes the color is almost the same as that of *L. volemus* and *L. hygrophoroides*, and again it is a tan color or a bay-red, as in *L. camphoratus*, from which such specimens are scarcely separable, except by their lack of odor. In young plants the pileus usually has a moist appearance, which is sometimes retained in maturity. Cordier pronounces the species edible, and says that he has tested it several times without inconvenience.

Lactarius paludinellus, n. sp.

Little marsh Lactarius.

Pileus thin, plane or slightly depressed, striatulate on the margin, glabrous, generally with a small blackish umbo or papilla, at first *dingy brown, becoming paler with age*; lamellæ moderately close, adnate or slightly decurrent, cream colored; stem nearly equal, stuffed or hollow, glabrous, with a white strigose-villosity at the base, paler than or colored like the pileus; spores .0003 to .00035 in.; milk white, taste mild.

Pileus 6 to 12 lines broad, stem 10 to 18 lines long, 1.5 to 2 thick.

Among sphagnum, in shaded marshes. Sandlake. August.

A small and rare species, related to but distinct from *L. sublucis* by its brownish expellent pileus and striatulate margin.

NEW YORK SPECIES OF PLUTEUS.

PLUTEUS, Fr.

Hymenophorum distinct from the fleshy or fleshy-fibrous stem, lamellæ rounded behind, free, at first crowded, white or yellowish, then flesh-colored; annulus and volva none.

The Plutei, in the pink-spored series of Agarics, correspond very nearly in structure to the Lepiotæ in the white-spored series. They differ from the Lepiotæ in having no annulus; and by its absence they are distinguished from the Annulariæ of their own series, and by the absence of a volva, from the Volvariæ. By their free lamellæ they are readily separated from all other pink-spored Agarics. The species are generally of medium or moderately small size. Nearly all inhabit decaying wood in groves or in the shades of forests, but the common Fawn Agaric, *P. cervinus*, is often found on old stumps in open situations where it is exposed to the full light of the sun. The pileus may be floccose-fibrillose, pruinose-pulverulent or glabrous, and by these characters Fries has separated the species into three groups. In some species the central part of the pileus is more or less rugose-wrinkled or uneven. The lamellæ are at first compactly crowded (coherent) very

much as in some species of Coprini, and in some species they are apt to become moist or almost deliquescent, especially in damp weather. Their color is generally white or yellowish-white when young, but they soon assume the salmon hue of the spores. They generally yield these readily and in great abundance. The spores, in our species, are even, with a single exception, and generally subglobose or broadly elliptical.

None of the species are very abundant with us and none are classed as edible.

Synopsis of the Species.

Pileus glabrous	1
Pileus not glabrous.....	2
2 Pileus white	3
2 Pileus not white.....	5
3 The margin not surpassing the lamellæ.....	4
3 The thin margin surpassing the lamellæ.....sterilomarginatus.	
4 Stem glabrous or merely fibrillose (partly).....cervinus.	
4 Stem pubescent or subtomentose	tomentosulus.
5 Pileus even or rarely with short marginal striations.....	6
5 Pileus with long marginal striations	longistriatus.
6 Pileus fibrillose or villose on the disk.....	7
6 Pileus pulverulent pruinose or granulose	8
7 Lamellæ concolorous on the edge (partly)	cervinus.
7 Lamellæ darker-colored on the edge.....	umbrosus.
8 Stem velvety-pubescent.....	granularis.
8 Stem glabrous.....	nanus.
1 Pileus even (partly).....	cervinus.
1 Pileus striate on the margin	leoninus.
1 Pileus rugose-reticulate on the disk.....	admirabilis.

Pluteus cervinus, Schæff.

Fawn-colored Agaric. Fawn Pluteus.

Pileus fleshy, at first campanulate, then convex or expanded, *even, glabrous, generally becoming fibrillose or slightly floccose-villose* on the disk, occasionally rimose, variable in color; lamellæ broad, somewhat ventricose, at first whitish, then flesh-colored; stem equal or slightly tapering upward, firm. solid, fibrillose or subglabrous, variable in color; spores broadly elliptical, .00025 to .00032 in. long, .0002 to .00025 broad.

Plant 2 to 6 inches high, pileus 2 to 4 broad, stem 3 to 6 lines thick. Decaying wood in groves, borders of woods and open places.

This species, with us, is very common and very variable, yet it is not abundant. Usually but one or two specimens are found at a time. It grows especially on or about old stumps and prostrate trunks and may be found in wet weather from May to October.

The typical form has the pileus and stem of a dingy or brown color and adorned with blackish fibrils, but specimens occur with the pileus white, yellowish, cinereous, grayish-brown or blackish-brown. I have never seen it of a true cervine color. It is sometimes quite glabrous and smooth to the touch and in wet weather it is even slightly viscid. It also occurs somewhat floccose-villose on the disk, and the disk, though usually plane or obtuse, is occasionally slightly prominent or subumbonate. The form with the surface of the pileus longitudinally rimose or chinky is probably

due to meteorological conditions. The lamellæ, though at first crowded, become more lax with the expansion of the pileus. They are generally a little broader toward the marginal than toward the inner extremity. Their tendency to deliquesce is often shown by their wetting the paper on which the pileus has been placed for the purpose of catching the spores. The stem is usually somewhat fibrous and striated but forms occur in which it is even and glabrous. When growing from the sides of stumps and prostrate trunks it is apt to be curved. Two forms deserve varietal distinction.

Var. *albus*. Pileus and stem white or whitish.

Var. *albipes*. Pileus cinereous yellowish or brown; stem white or whitish, destitute of blackish fibrils.

In Europe there are three or four forms which have been designated as species under the names *A. rigens*, *A. patricius*, *A. eximius* and *A. petasatus*, but Fries gives them as varieties or subspecies of *A. cervinus*, though admitting that they are easily distinguished. None of these have occurred in our State. *A. atricapillus*, Batsch., *A. latus*, Bolt., *A. Pluteus*, Pers., and *A. Neesii*, Kl., are given as synonyms of *A. cervinus*.

Pluteus umbrosus, Pers.

Shade-loving Agaric. Brown Pluteus.

Pileus fleshy, at first campanulate, then convex or expanded, *rugose wrinkled* and more or less villose on the disk, fimbriate on the margin, *blackish-brown*; lamellæ broad, somewhat ventricose, at first whitish, then flesh-colored, *blackish-brown and fimbriate or denticulate on the edge*; stem solid, colored like or paler than the pileus, fibrillose or villose-squamose; spores elliptical, .0003 in. long, .0002 broad.

Decaying wood and stumps, especially of pine, both in shaded and open places. Not rare.

This is similar in size and general appearance to the preceding species, from which it is readily distinguished by the rugose-villose disk of the pileus and the dark brown edge of the lamellæ. The color of the pileus is usually darker than in that species. I have not seen it with the margin fimbriate, though this is a prominent character of the species in Europe.

Pluteus granularis, Peck.

Granular Pluteus.

Pileus convex or nearly plane, subumbonate, *rugose-wrinkled, granulose or granulose-villose*, varying in color from yellow to brown; lamellæ rather broad, crowded, ventricose, whitish, then flesh-colored; stem equal, solid, colored like the pileus, often paler at the top, *velvety-pubescent*, rarely squamulose; spores subglobose or broadly elliptical, .00025 to .0003 in. long, .0002 to .00025 broad.

Plant 1.5 to 3 inches high, pileus 1 to 2 inches broad, stem 1 to 2 lines thick.

Decaying wood and prostrate trunks in woods. Hilly and mountainous districts. June to September.

The species is closely related to the two preceding, but is readily distinguished from them by the peculiar vesture of the pileus and stem.

The granules are so minute and so close that they form a sort of plush on the pileus, more dense on the disk and radiating wrinkles than elsewhere. The clothing of the stem is finer, and has a velvety-pubescent appearance, but in some instances it breaks up into small scales or squamules. The color of the pileus and stem is usually some shade of yellow or brown, but occasionally a grayish hue predominates. The darker color of the granules imparts a dingy or smoky tinge to the general color. The disk is often darker than the rest of the pileus.

Pluteus nanus, Pers.

Dwarf Agaric. Mealy Pluteus.

Pileus somewhat fleshy, thin, convex or nearly plane, obtuse, rugulose, *pulverulent or dingy-pruinose, brown*; lamellæ close, ventricose, white or yellowish, then flesh-colored; stem equal, solid, firm, striate, *glabrous*, white or yellowish; spores subglobose, .0002 to .00025 in. long.

Plant about 1 inch high, pileus 6 to 12 lines broad, stem 1 line thick.

Decaying wood and sticks. Not common nor abundant when it does occur. July to September.

The small size, dingy-mealy or pulverulent pileus and small subglobose spores are characteristic of this species. Small specimens sometimes have the margin of the pileus slightly striate. Large specimens may be distinguished from small forms of the preceding species by the glabrous stem. The European variety *lutescens*, which has the stem and lamellæ yellowish, has not yet been observed in our State. *Agaricus pyrrhospermus*, Bull. is given as a synonym.

Pluteus tomentosulus, Peck.

Woolly Agaric.

Pileus thin, convex or nearly plane, subumbonate, *minutely villose or squamulose-tomentose*, white; lamellæ rather broad, rounded behind, crowded, white then flesh-colored; stem equal, solid, striate, *slightly pubescent or subtomentose*, white; spores subglobose or broadly elliptical, .00025 to .00032 in. long, .00025 broad, generally containing a single large nucleus.

Plant 2 to 5 inches high, pileus 1 to 3 inches broad, stem 2 to 4 lines thick.

Decaying wood and prostrate trunks. Catskill mountains and Gansevoort. July and August.

This rare but beautiful species appears to be the American analogue of the European. *P. pellitus*, Pers., which differs in its silky pileus and glabrous stem. The entire plant, when young, is pure white, but with advancing age the lamellæ assume the usual pinkish hue and the margin of the pileus is sometimes tinged with the same color.

Pluteus sterilomarginatus, Peck.

Sterile-margined Agaric.

Pileus thin, broadly convex or expanded, with a minute close-pressed tomentum, pinkish-white, the thin *margin extending beyond the lamellæ*; lamellæ close, subventricose, minutely eroded on the edge, tapering

toward the outer extremity, pale flesh-colored ; stem short, equal, solid, glabrous, straight or curved, whitish ; spores *subglobose, angular*, .00025 in. broad, usually containing a single central nucleus.

Plant about 1 inch high, pileus 6 to 12 lines broad, stem .5 to 1 line thick.

Decaying trunks and sticks in woods. Portville. September.

This rare species has been found but once. It is much smaller and more delicate than the preceding, and easily distinguished by its thin margin projecting beyond the lamellæ and by the character of the spores. The pileus sometimes cracks in areas, and then it has the appearance of being coated with a thin, scaly paste.

Pluteus longistriatus, Peck.

Striated Pluteus.

Pileus thin, convex or expanded, dry, *striate to the disk, cinereous or whitish*, the disk often darker than the margin and minutely squamulose or hairy ; lamellæ broad, ventricose, white, then flesh-colored ; stem equal, glabrous, white ; spores globose, .0003 in. broad.

Plant about 2 inches high, pileus 1 to 1.5 broad, stem about 1 line thick.

Decaying wood. Albany. July.

This species is well marked by the long striations of the pileus. It was discovered in one of the streets of Albany in 1876, but has not been observed since that time. The spores at first sight appear globose, but there is a depression on one side that gives them an orbicular or saucer shape.

Pluteus leoninus, Schæff.

Lion-colored Agaric. Yellow Pluteus.

Pileus thin, campanulate, then convex or expanded, *even*, glabrous, moist or subhygrophanous, striate on the margin, yellow or reddish-yellow ; lamellæ rather broad, rounded behind, yellowish or yellowish on the edge, then flesh-colored ; stem equal, *solid*, slightly striate, white or yellowish, spores broadly elliptical, .00028 to .00032 in. long, .00025 broad.

Plant about 2 inches high, pileus 1 to 2 inches broad, stem 2 to 3 lines thick.

Decaying wood in forests. Adirondack mountains. August.

This is a very rare species in our State. Its glabrous pileus and yellowish color distinguish it from all the foregoing species, its even pileus and solid stem, from the next following species.

Pluteus admirabilis, Peck.

Admirable Pluteus.

Pileus thin, convex or expanded, generally broadly umbonate, glabrous, *rugose-reticulated*, moist or hygrophanous, striatulate on the margin when moist, often obscurely striate when dry, yellow or brown ; lamellæ close, broad, rounded behind, ventricose, whitish or yellowish, then flesh-colored ; stem slender, glabrous, *hollow*, equal or slightly

thickened at the base, yellow or yellowish-white, with a white mycelium; spores subglobose or broadly elliptical, .00025 to .0003 in. long, .00025 broad.

Var. *fuscus*. Pileus brown or yellowish-brown.

Plant 1 to 2 inches high, pileus 6 to 10 lines broad, stem .5 to 1 line thick.

Decaying wood and prostrate trunks in forests. Common in hilly and mountainous districts. July to September.

This beautiful *Pluteus* is closely related to *P. chrysophlebius*, B. & R., a southern species, which, according to the description, has the veins of the pileus darker colored than the rest of the surface and the stem enlarged above and hairy at the base, characters not shown by our plant. It is also similar to the European *P. chrysophæus*, Schæff., but according to Fries that species is larger and has a more even pileus, which is constantly cinnamon-colored. The variety, which grows with the typical form, sometimes on the same prostrate trunk with it, differs only in color, and forms a connecting link between this species and the European, *P. phlebophorus*, Ditm., from which it is scarcely distinguishable, except by its smaller size, hygrophane character and striatulate margin. Indeed all the species, together with *P. leoninus*, Schæff., differ from each other by such slight characters that their separation is unsatisfactory. It is quite possible that when the range of their variations is more fully investigated they will be found to constitute a single comprehensive and very variable species. In our plant small young specimens sometimes have the stem solid, but when fully developed it is hollow, though the cavity is small. This character, with its small size, distinguishes it from *P. leoninus*.

EXPLANATION OF PLATE I.

CERCOSPORA COMARI, *Peck.*

- Fig. 1. A leaflet spotted by the fungus.
- Fig. 2. A tuft of four flocci, two of them bearing spores, x 400.
- Fig. 3. Two spores, x 400.

HADROTRICHUM LINEARE, *Peck.*

- Fig. 4. Upper part of a leaf bearing linear patches of the fungus.
- Fig. 5. A tuft of five flocci, two of them bearing spores, x 400.
- Fig. 6. Five spores, x 400.

ENTYLOMA SANICULÆ, *Peck.*

- Fig. 7. A leaflet spotted by the fungus.
- Fig. 8. Five spores, x 400.
- Fig. 9. Four conidia, x 400.

CYLINDROSPORIUM VERATRINUM, *S. & W.*

- Fig. 10. Upper part of a leaf bearing linear patches of the fungus.
- Fig. 11. A tuft of four flocci, two of them bearing spores, x 400.
- Fig. 12. Two spores, x 400.

RAMULARIA OXALIDIS, *Farl.*

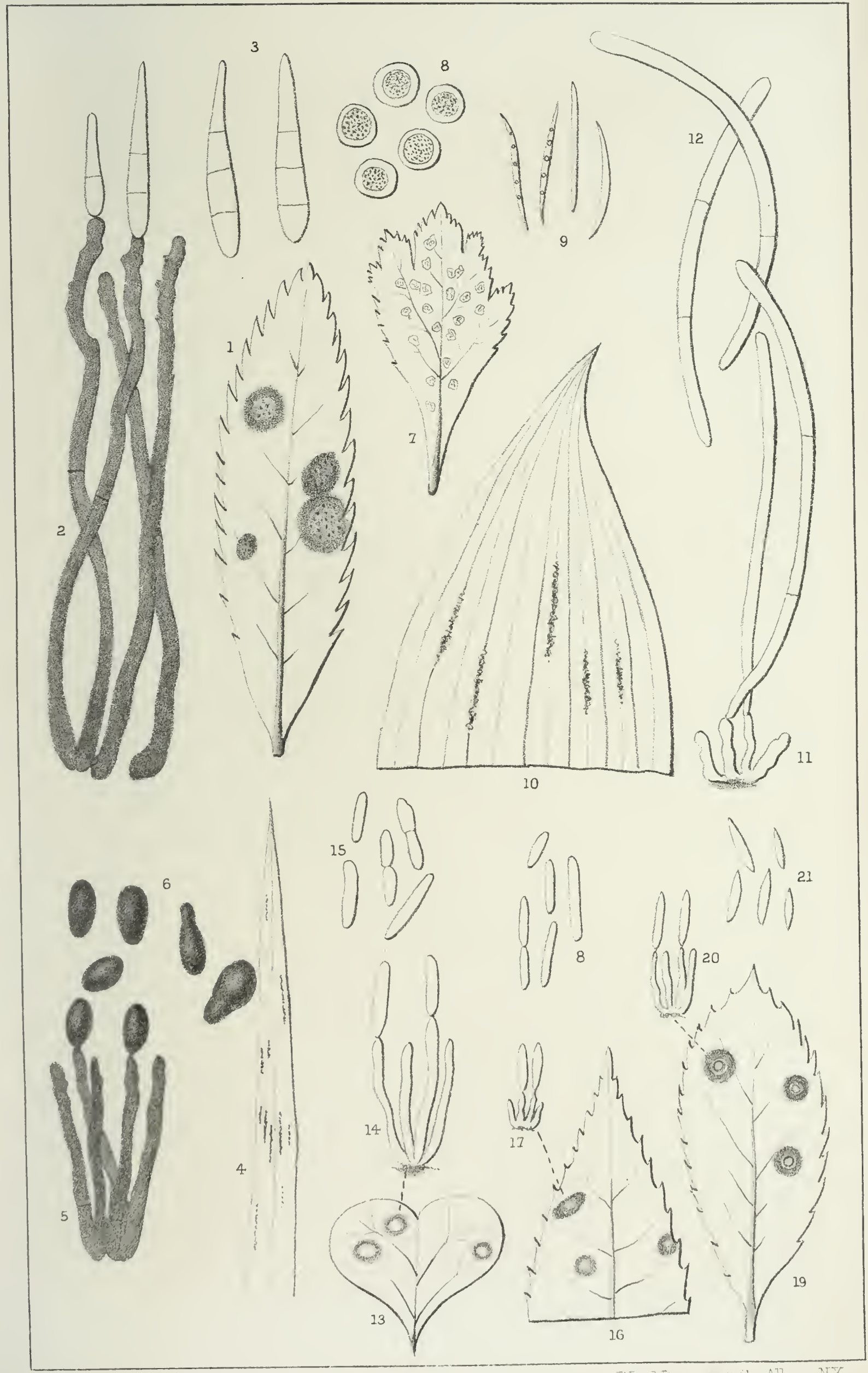
- Fig. 13. A leaflet spotted by the fungus.
- Fig. 14. A tuft of four flocci, two of them bearing spores, x 400.
- Fig. 15. Five spores, x 400.

RAMULARIA DIERVILLÆ, *Peck.*

- Fig. 16. Upper part of a leaf spotted by the fungus.
- Fig. 17. A tuft of four flocci, two of them bearing spores, x 400.
- Fig. 18. Six spores, two of them united end to end, x 400.

RAMULARIA PRINI, *Peck.*

- Fig. 19. A leaf spotted by the fungus.
- Fig. 20. A tuft of four flocci, two of them bearing spores, x 400.
- Fig. 21. Five spores, x 400.



EXPLANATION OF PLATE II.

OVULARIA MONILOIDES, *E. & M.*

- Fig. 1. A leaf spotted by the fungus.
- Fig. 2. A branchlet with the central part frosted by the fungus.
- Fig. 3. A tuft of four flocci, two of them bearing spores, x 400.
- Fig. 4. Seven spores, x 400.

AGARICUS (INOCYBE) COMATELLUS, *Peck.*

- Fig. 5. Four plants of usual size.
- Fig. 6. Vertical section of a pileus and the upper part of its stem.
- Fig. 7. A cystidium, x 400.
- Fig. 8. Five spores, x 400.

ASCOCHYTA COLORATA, *Peck.*

- Fig. 9. A leaflet spotted by the fungus.
- Fig. 10. Five spores, x 400.

ASTERINA NUDA, *Peck.*

- Fig. 11. Tip of a branchlet with three fungus bearing leaves.
- Fig. 12. A leaf showing the fungus on the lower surface, magnified.
- Fig. 13. A leaf showing the fungus on the upper surface, magnified.
- Fig. 14. An ascus containing spores, x 400.
- Fig. 15. Four spores, x 400.

LEPTOSPHERIA LYCOPODIICOLA, *Peck.*

- Fig. 16. Piece of a branch bearing the fungus.
- Fig. 17. A perithecium and its matrix, magnified.
- Fig. 18. Two paraphyses and an ascus containing spores, x 400.
- Fig. 19. Four spores, x 400.

LEPTOSPHERIA CORALLORHIZÆ, *Peck.*

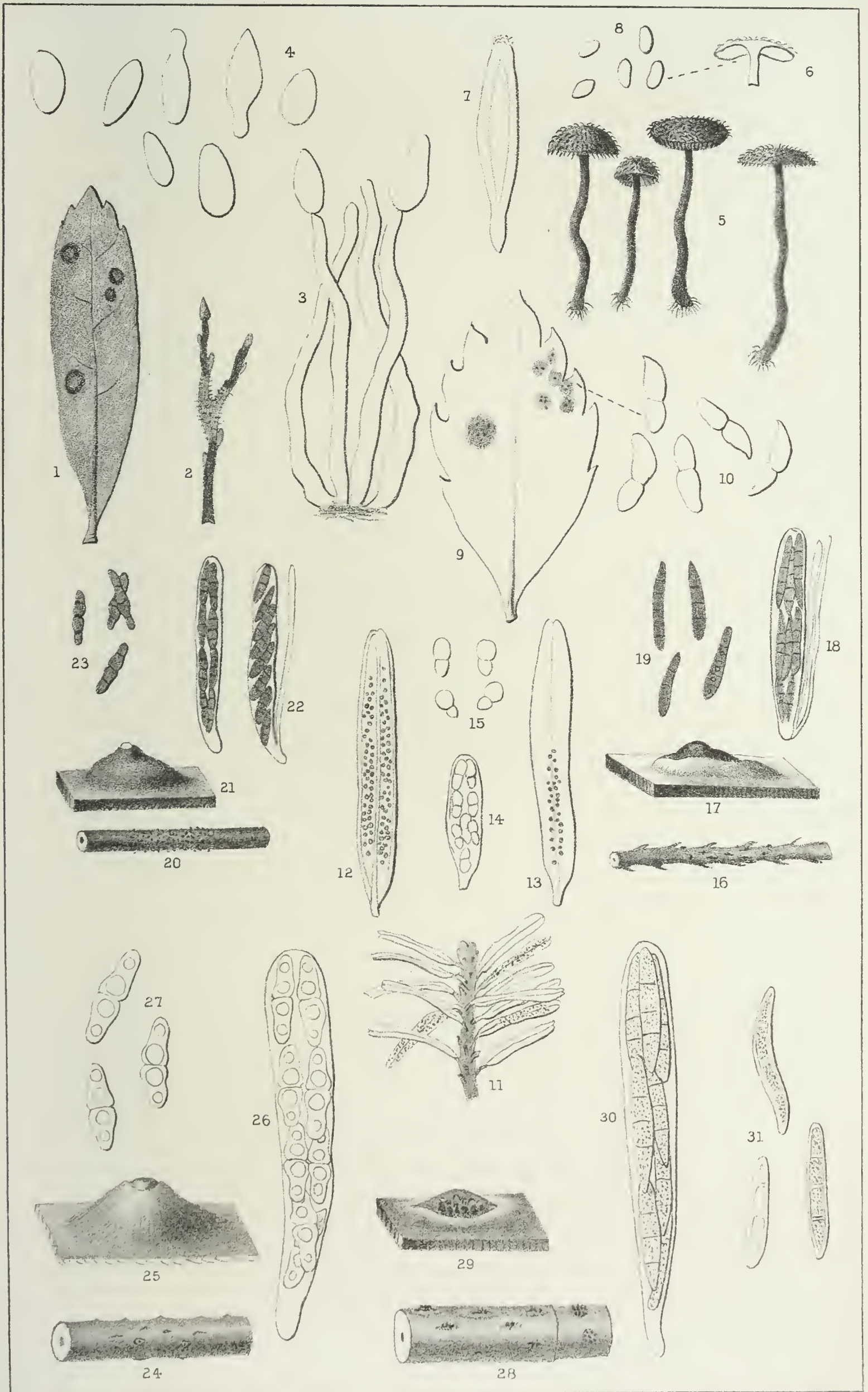
- Fig. 20. Piece of a stem, bearing the fungus.
- Fig. 21. A perithecium and its matrix, magnified.
- Fig. 22. A paraphysis and two asci containing spores, x 400.
- Fig. 23. Four spores, x 400.

METASPHÆRIA MYRICÆ, *Peck.*

- Fig. 24. Piece of a branch bearing the fungus.
- Fig. 25. A perithecium and its matrix, magnified.
- Fig. 26. An ascus containing spores, x 400.
- Fig. 27. Three spores, x 400.

CRYPTOSPORA CARYÆ, *Peck.*

- Fig. 28. Piece of a branch bearing the fungus.
- Fig. 29. A pustule and its matrix, magnified.
- Fig. 30. An ascus containing spores, x 400.
- Fig. 31. Three spores, x 400.



EXPLANATION OF PLATE III.

APPENDICULARIA ENTOMOPHILA, *Peck.*

- Fig. 1. Leg of a fly bearing the fungus, magnified.
- Fig. 2. A perithecium and its appendages more highly magnified.
- Fig. 3. Tip of the perithecial rostrum with spores escaping from its apex, x 400.
- Fig. 4. Three spores, x 400.

SPHÆROGRAPHIUM HYSTRICINUM, *Sacc.*

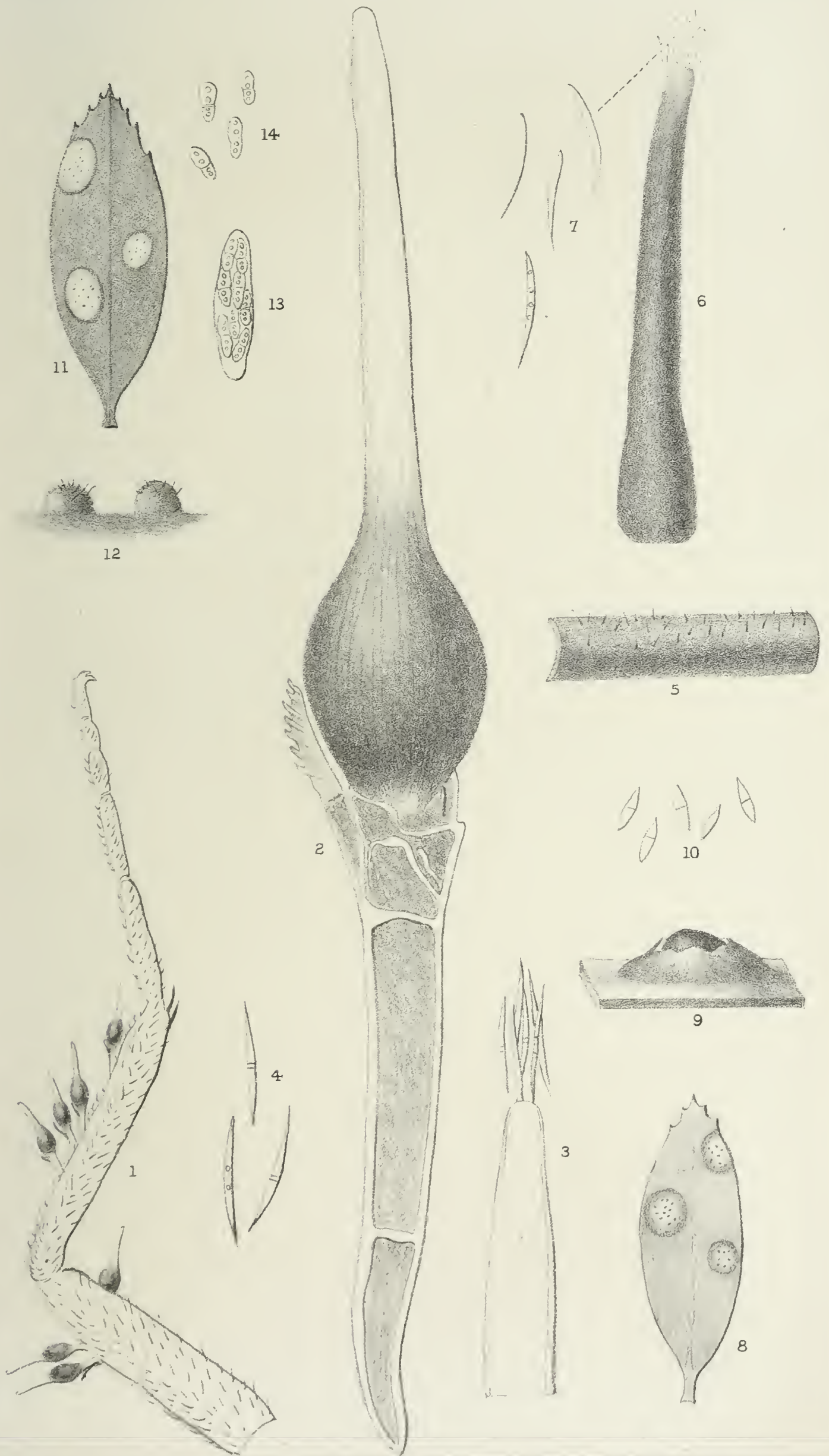
- Fig. 5. Piece of bark bearing the fungus.
- Fig. 6. A perithecium with spores escaping from its apex, magnified.
- Fig. 7. Four spores, x 400.

ASCOCHYTA CASSANDRÆ, *Peck.*

- Fig. 8. A leaf spotted by the fungus.
- Fig. 9. A perithecium and its matrix, magnified.
- Fig. 10. Five spores, x 400.

VENTURIA CASSANDRÆ, *Peck.*

- Fig. 11. A leaf spotted by the fungus.
- Fig. 12. Two perithecia, magnified.
- Fig. 13. An ascus containing spores, x 400.
- Fig. 14. Four spores, x 400.



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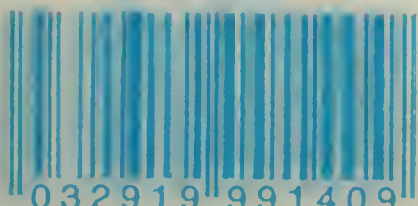
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